

BEST AVAILABLE COPY

Customer No. 23932

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application Of:)	Atty. Docket No.: 47168-00033USC1
)	
Keith D. Beaty)	Examiner: Paul Prebilio
)	
Application No.: 09/259,432)	Group Art Unit: 3738
)	
Filed: March 1, 1999)	
)	
For: Implant Surface Preparation)	

DECLARATION OF PRABHU GUBBI

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

I, Prabhu Gubbi, declare that:

- A. I reside at 4445 SW Oakhaven Lane, Palm City, FL 34990.
- B. I have degrees in Mechanical Engineering and Foundry Engineering from Bangalore University, India. I also have a Ph.D. degree in Materials Engineering from Auburn University. Since receiving my Ph.D., I have been employed as an engineer with several corporations where I have worked as a material scientist. Currently, I am a materials scientist with Implant Innovations, Inc ("3i").
- C. In the course of my work at 3i, I have examined numerous surfaces of objects used in dental implantology. One of the machines that I use to examine these surfaces is a Scanning Electron Microscope (SEM). The machine that I use is made by Aspek Instruments LLC and its Model number is PSEM II. This machine is about 4 years old.

D. Within the past several months, I have reviewed several dental implant surfaces from other manufacturers. I understood that the purpose of my review was to develop a summary of competitive implant surfaces that were to be submitted to the U.S. Patent & Trademark Office in connection with the present patent application, which is assigned to *3i*.

E. When developing each implant sheet, I developed a picture of the package in which the implant came (assuming it had a package), an SEM picture at 25X of the implant, and an SEM picture at 2000X to see the microstructure on the implant surface.

F. I have tried to determine the manufacturing date of each implant as accurately as possible based on the information provided by implant manufacturers on the package. Most of the manufacturers have placed either a "sterilization" date or a "use before" date (i.e., "expiration" date) on the package. For those manufacturers that provide only a "use before" or "expiration" date, it was assumed that the implant was manufactured at least two years earlier. Some manufactures provide a "lot number" which suggests a manufacturing date in its code. Further, because it is my understanding that implant manufacturers have provided sterile implants to clinicians since at least 1990, any non-sterile implants were assumed to be from the 1980's.

G. Implants in 35 through 61 are from lawsuit civil action #91-C-4632, filed in the Northern District of Illinois related to US Patent #4,330,891, which was concluded in 1998. These implants are believed to have been made in the 1970s, 1980s or early 1990s. The extent, if any, of the sales or other public disclosure of these implants is currently not known.

H. The enclosed report contains one sheet on each of the following 61 implants.

1. Institut-Straumann AG - titanium plasma sprayed hollow cylindrical implant in an unsterilized package believed to be from the 1980's

2. Institut-Straumann AG - titanium plasma sprayed hollow cylindrical implant in an unsterilized package believed to be from the late 1980's
3. Calcitek - HA-coated "Integral Omniloc" implant believed to be from 1995
4. Calcitek - HA-coated "Integral Omniloc" implant believed to be from 1990
5. Imtec - HA-coated implant distributed by Osteomed Inc. believed to be from 1994
6. Interpore - HA-coated implant believed to be from 1989
7. Interpore - titanium plasma sprayed implant believed to be from 1993
8. Minimatic - titanium plasma sprayed implant believed to be from 1993
9. Stryker - HA-coated implant believed to be from 1987
10. The "O" Company - push-in implant with blasted surface believed to be from 1994
11. Impla-Med - HA-coated implant believed to be before 1992
12. Collagen Biomedical - HA-coated implant believed to be from 1991
13. Steri-Oss - HA-coated implant believed to be from 1990
14. Friedrichsfeld - titanium plasma sprayed implant believed to be distributed in Germany in 1991
15. Lifecore Biomedical - titanium plasma sprayed implant believed to be from 1995
16. Stryker - titanium plasma sprayed implant believed to be from 1992
17. Mathys - threaded implant believed to be from 1992
18. Nobelpharma - machined implant believed to be from 1991
19. Nobelpharma - machined implant believed to be from 1987

20. Miter, Inc. - blade-style implant with blasted surface believed to be from 1986
21. Miter, Inc. - blade-style implant with blasted + etched surface believed to be from 1987
22. Astra Dental - machined implant believed to be before 1996
23. Calcitek - HA-coated "Integral SD" implant believed to be from 1988
24. Lifecore Biomedical - HA-coated implant believed to be from 1995
25. Lifecore Biomedical - machined implant believed to be from 1995
26. Collagen Biomedical - machined implant believed to be from 1990
27. Institut Straumann - titanium plasma sprayed hollow screw implant in an unsterilized package believed to be from the 1980's
28. Institut Straumann - titanium plasma sprayed screw implant in an unsterilized package believed to be from the 1980's
29. Astra Tech - screw implant with blasted surface believed to be before 1997
30. Core-Vent - screw implant with blasted surface believed to be from 1996
31. Straumann - titanium plasma sprayed implant believed to be before 1996
32. Institut Straumann - titanium plasma sprayed implant believed to be before 1995
33. Dentsply Core-Vent - HA-coated implant believed to be before 1996
34. Dentsply Core-Vent - machined implant believed to be before 1996
35. Cherchev Implant – implant appears to have blasted surface
36. Samson Titanium Screw – implant appears to have machined surface
37. Oratronics Spiral – implant appears to have a slightly roughened surface
38. Oratronics Blade – implant appears to have a slightly roughened surface
39. Synthodont – implant appears to have a blasted surface

40. Vitradent – implant appears to have a slightly roughened surface
41. Zimmer Mandibular Staple – implant appears to have blasted surface
42. MI-150-TI – implant appears to have machined surface
43. Ti 1968-70 – implant appears to have a slightly roughened surface
44. Cast Vitallium Surgical – implant appears to have a blasted surface
45. Park Dental – implant appears to have a slightly roughened surface
46. Babbush Implants – implant appears to have blasted surface
47. Oratronics – implant appears to have a slightly roughened surface
48. Swingos – implant appears to have a slightly roughened surface
49. Konkoly – implant appears to have a slightly roughened surface
50. Sulzer Protusil – implant appears to have a titanium plasma sprayed surface
51. IRC Curved – implant appears to have a slightly roughened surface
52. Oratronics – implant appears to have a slightly roughened surface
53. Hamilton – implant appears to have a slightly roughened surface
54. Barton Partial – implant appears to have blasted surface
55. Arenson – implant appears to have blasted surface
56. IRC Clinical Retrieval – implant appears to have a slightly roughened surface
57. Park Dental – implant appears to have blasted surface
58. Oratronics – implant appears to have a slightly roughened surface
59. Interplant – implant appears to have blasted surface
60. Subperiosteal – implant appears to have a slightly roughened surface

61. Continuous Blade – implant appears to have a machined surface

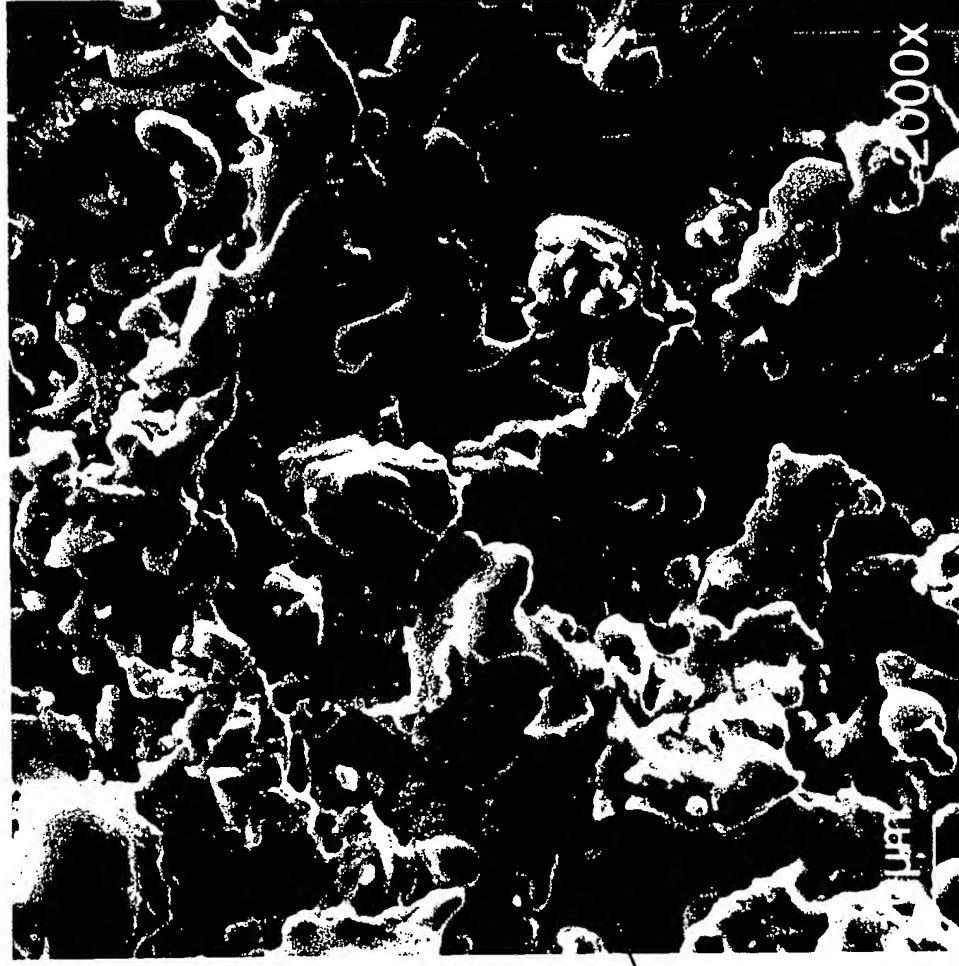
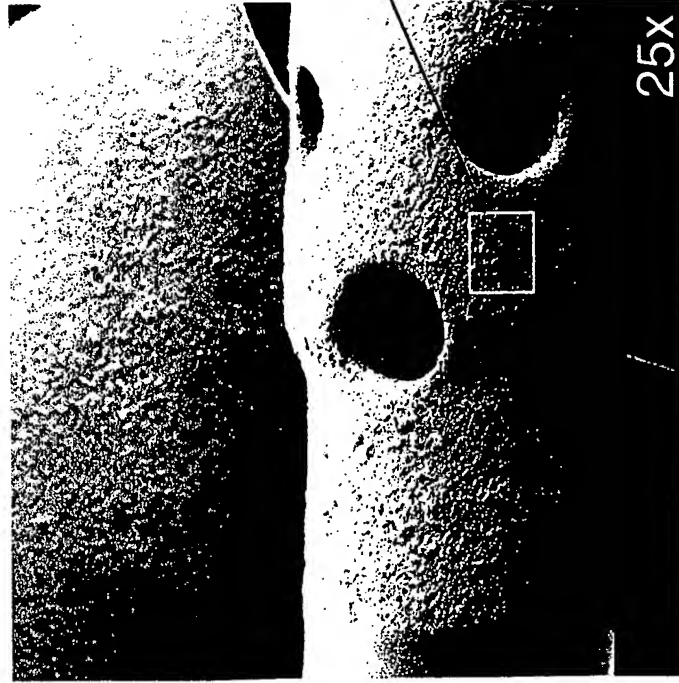
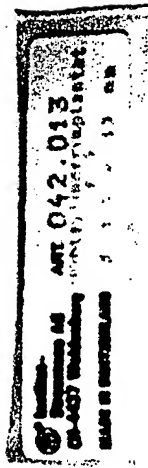
Date: 11-02-2001



Prabhu Gubbi

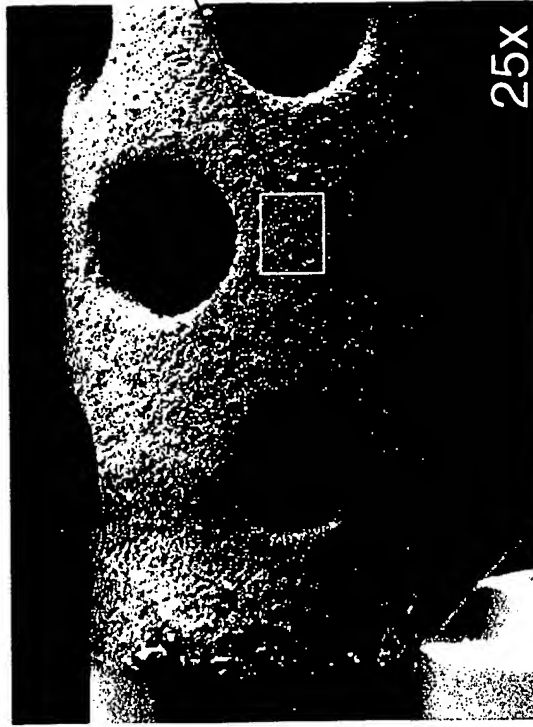
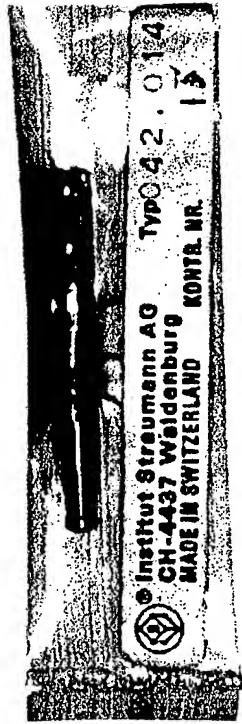
1. Institut - Straumann AG

①

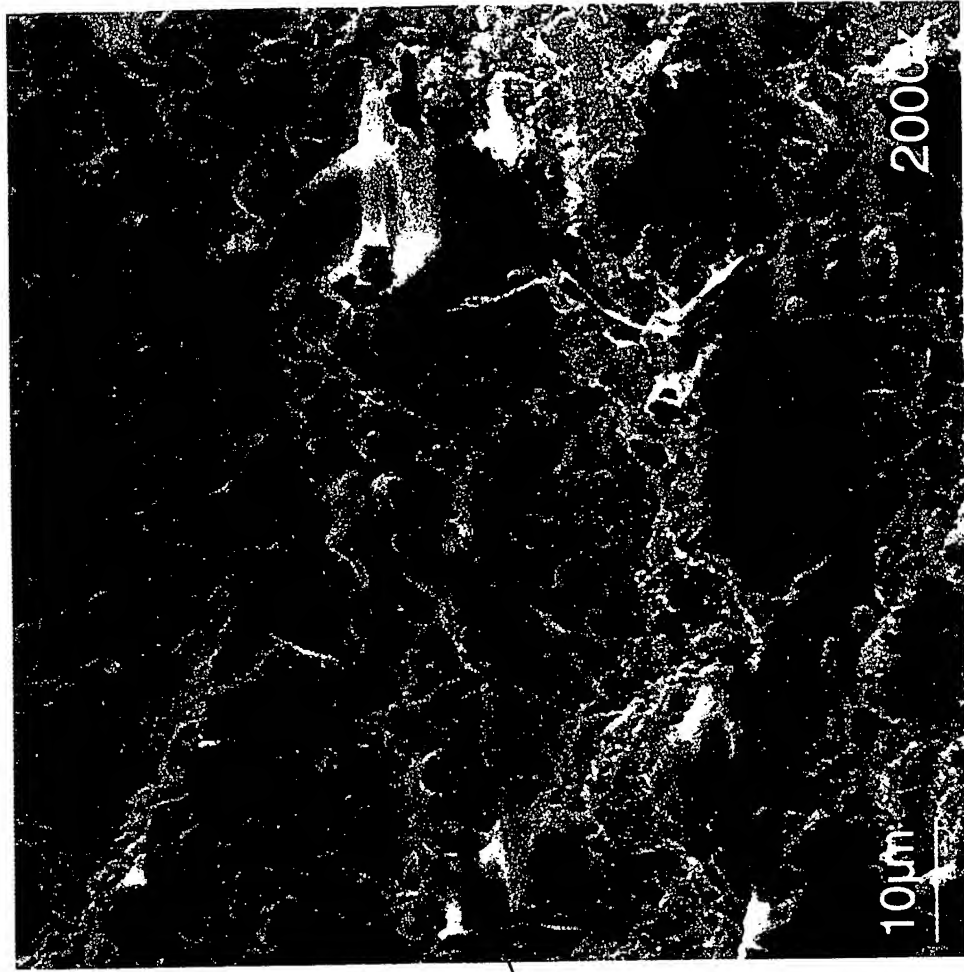
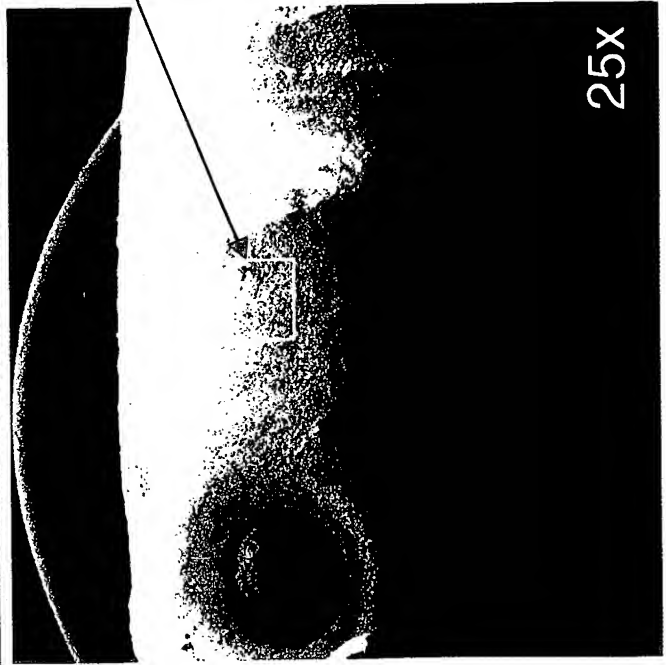
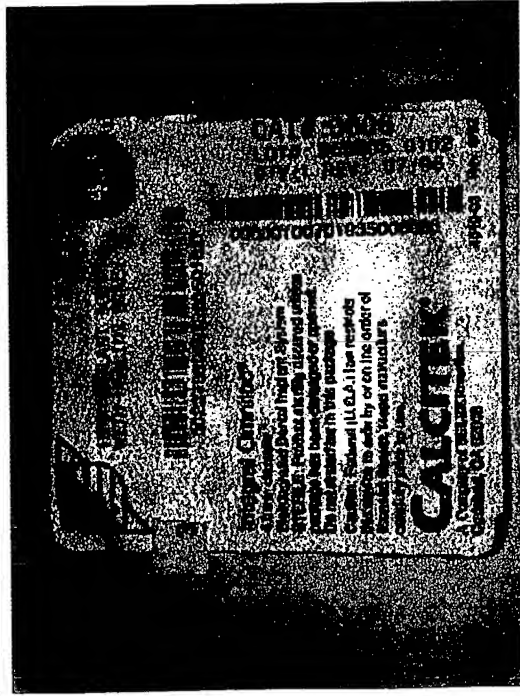


2. Institut - Straumann AG

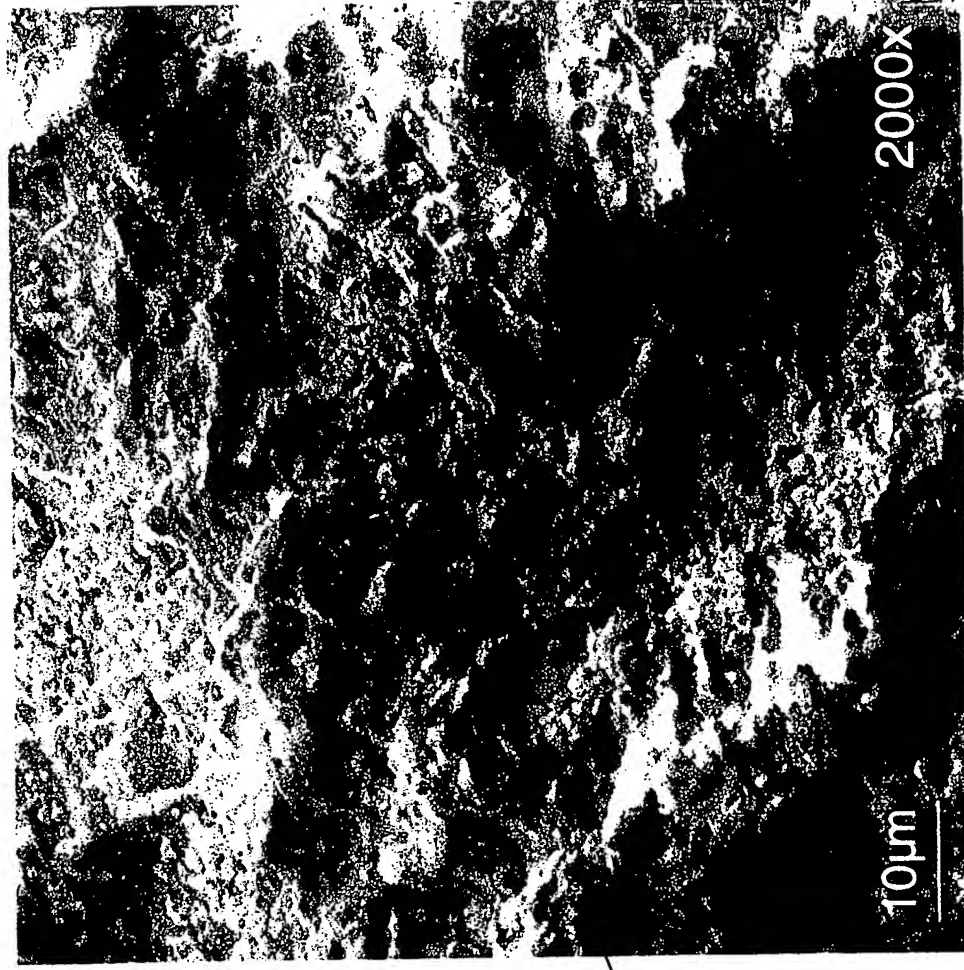
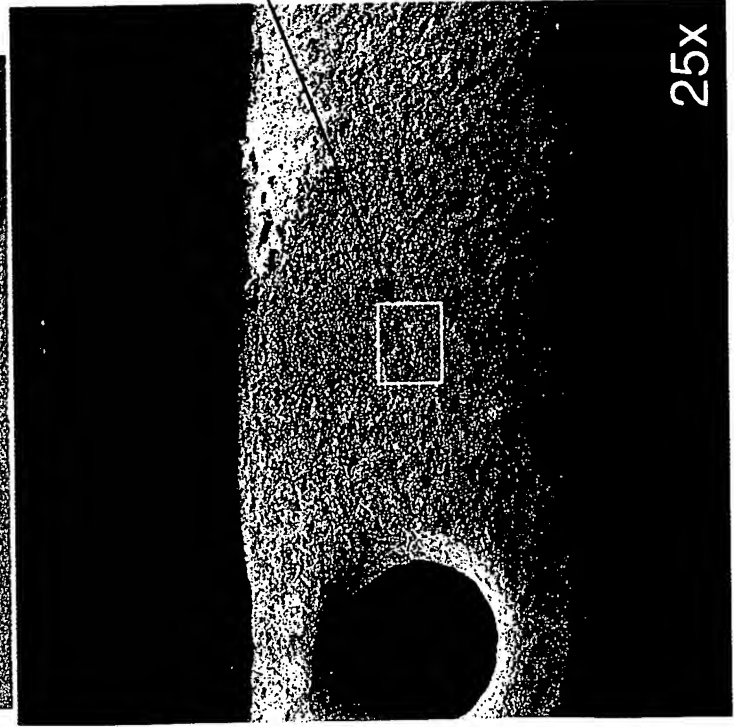
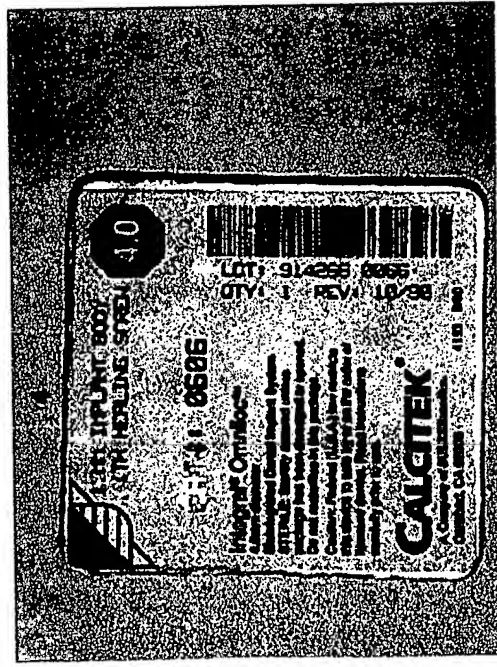
(2)



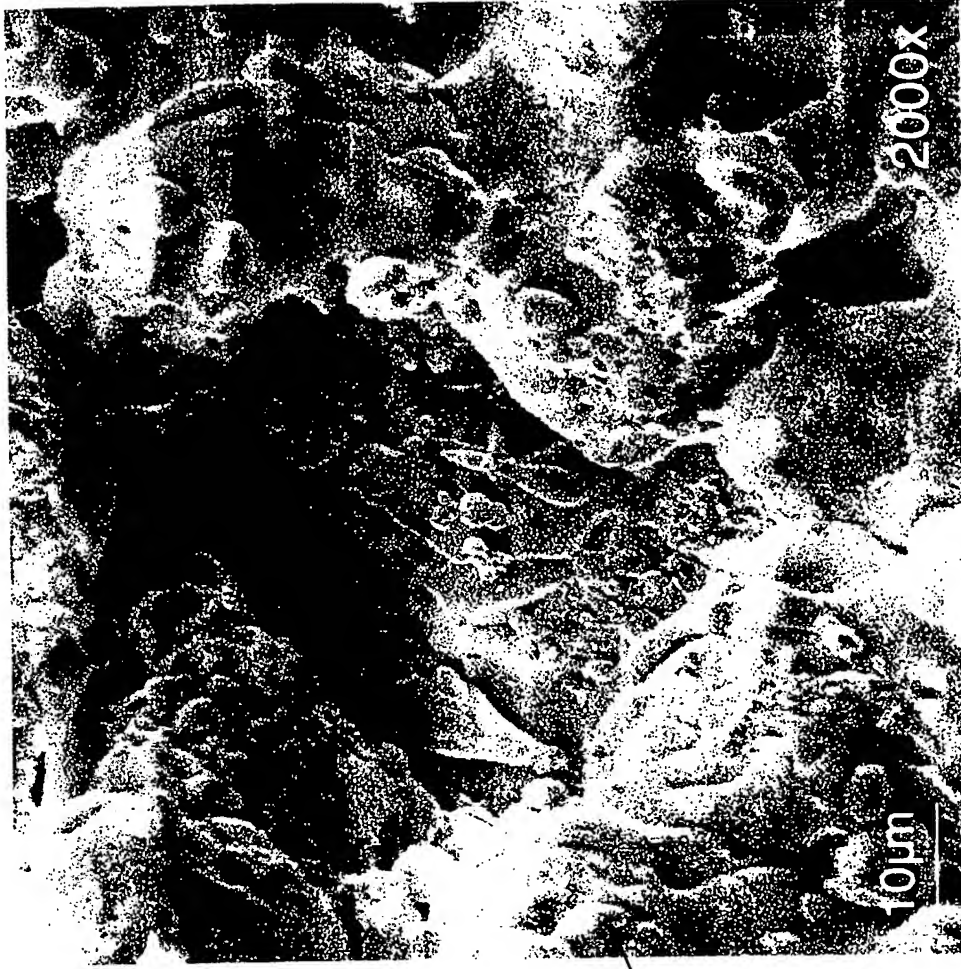
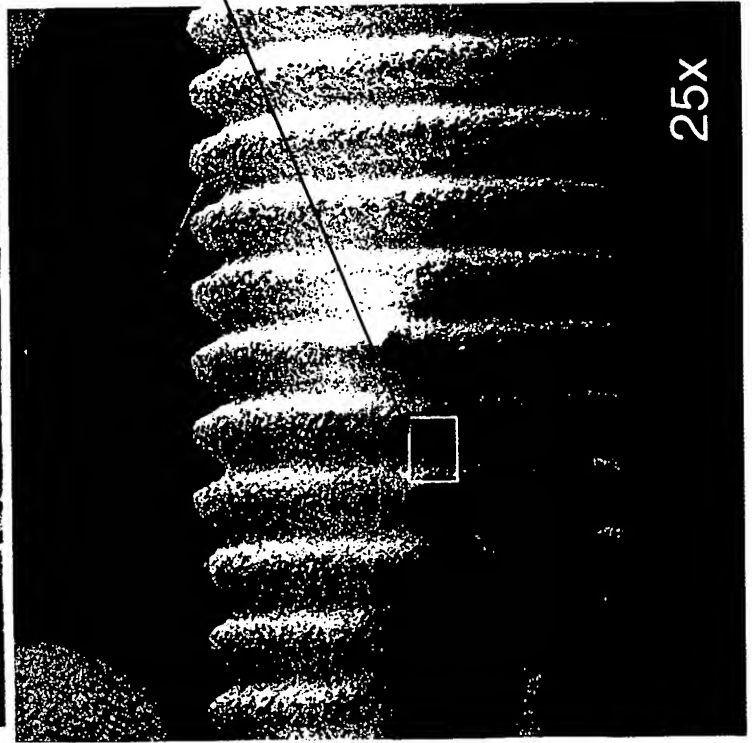
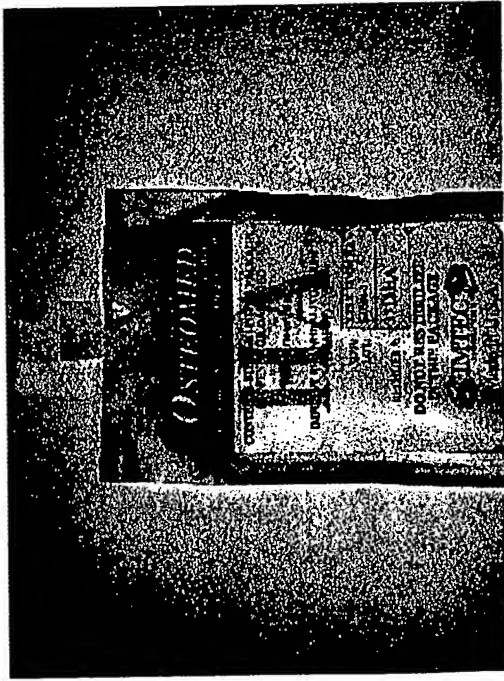
3. Calcitek



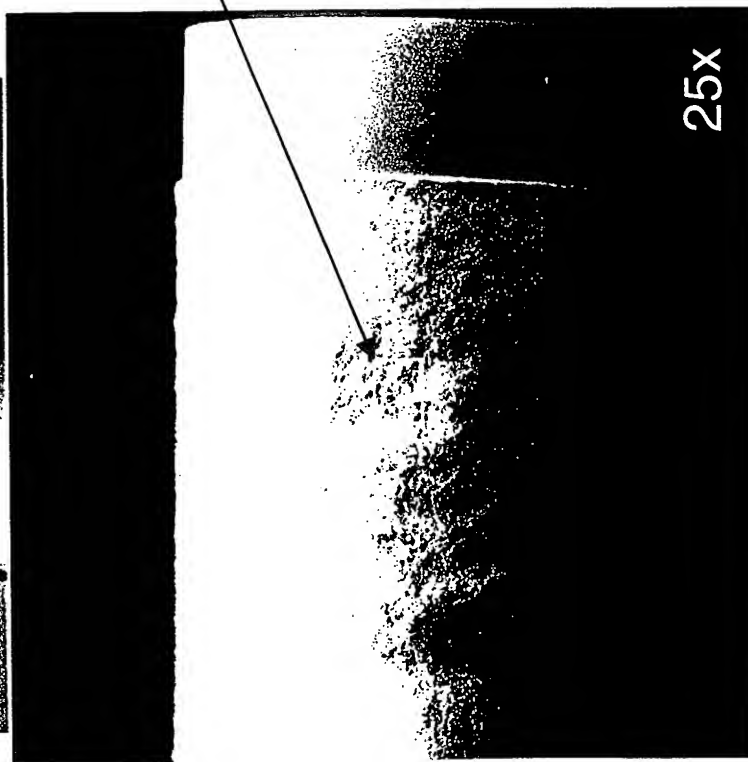
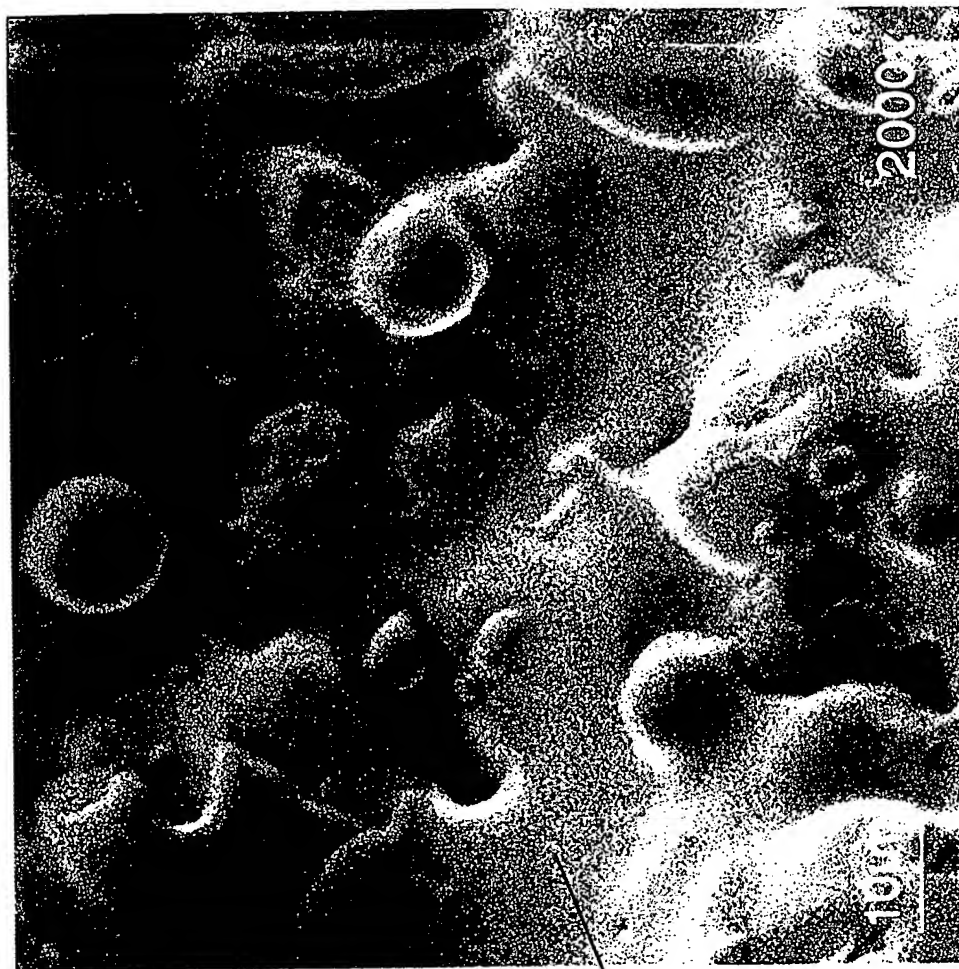
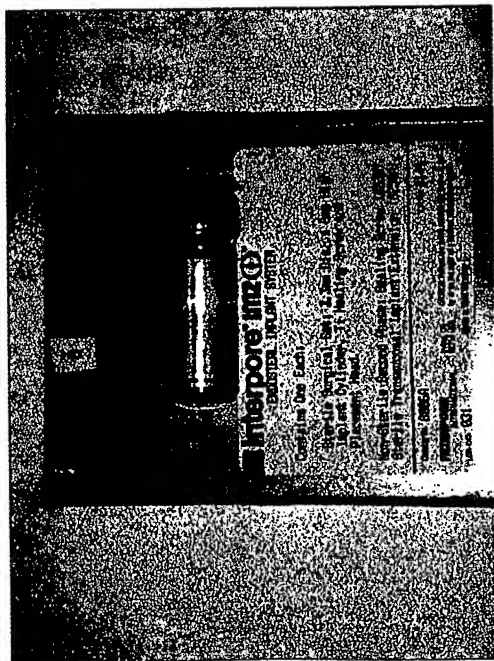
4. Calcitek



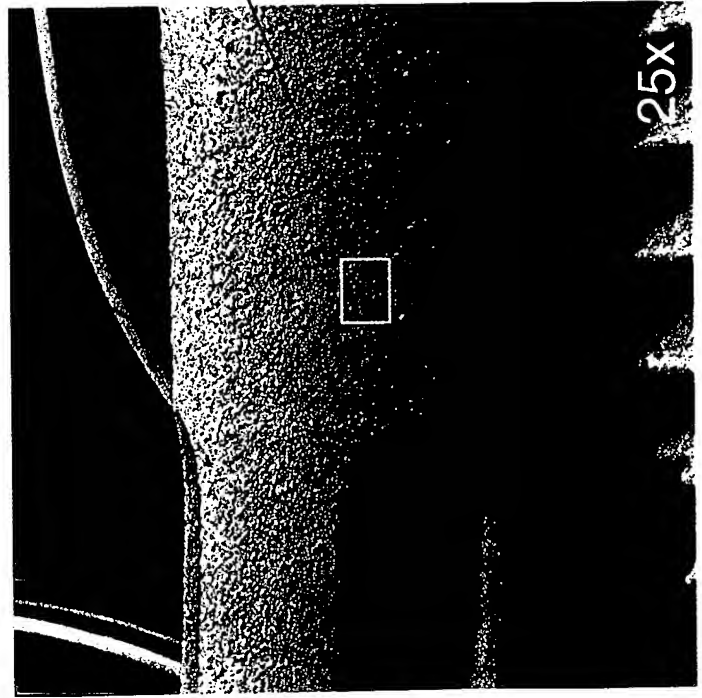
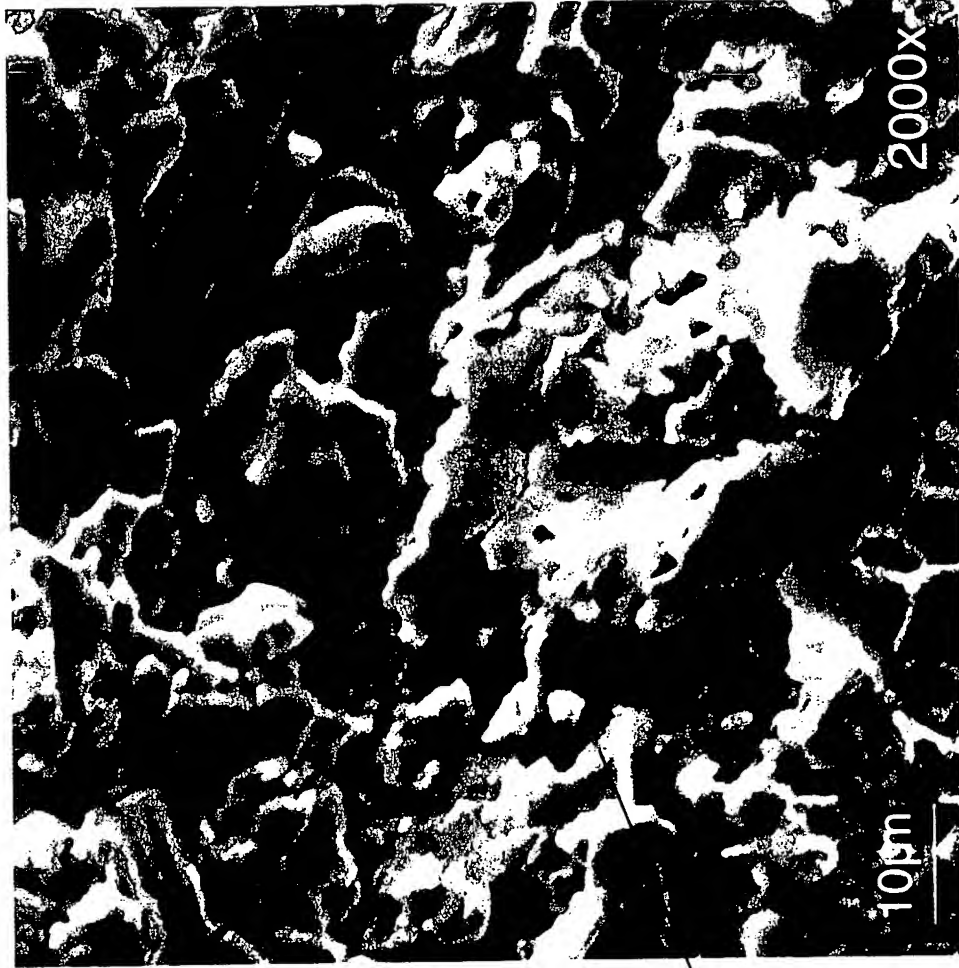
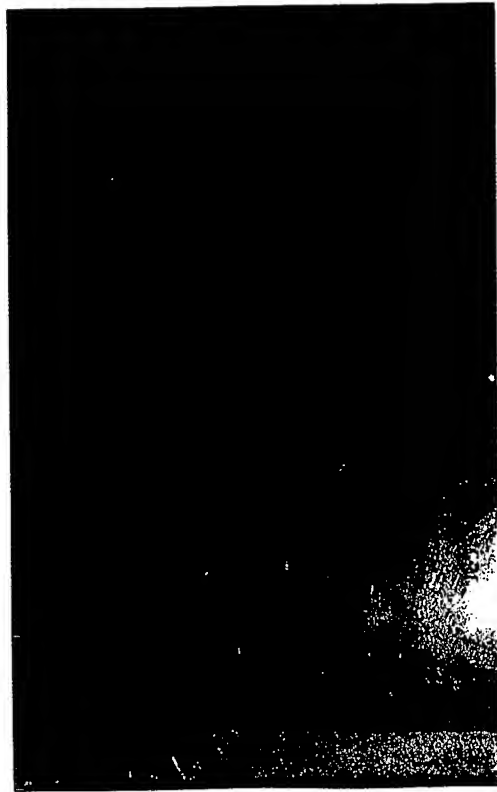
5. Imtec



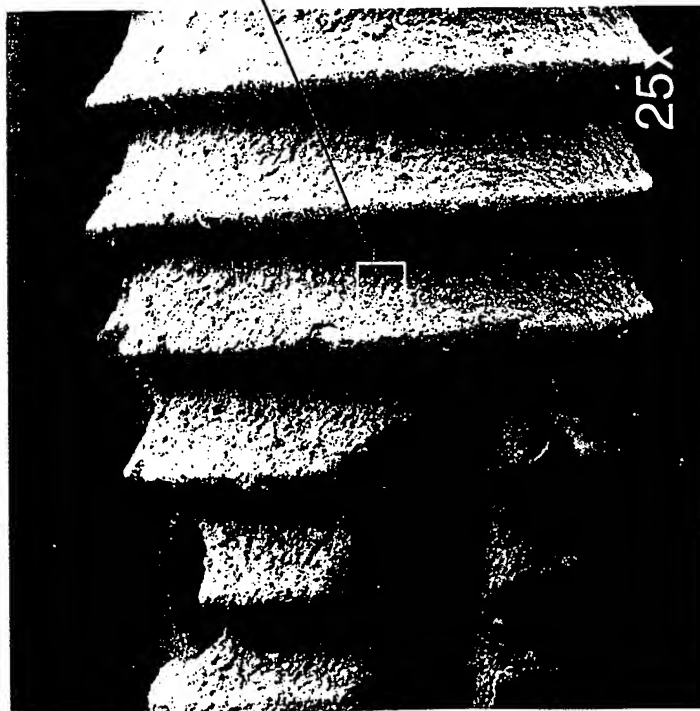
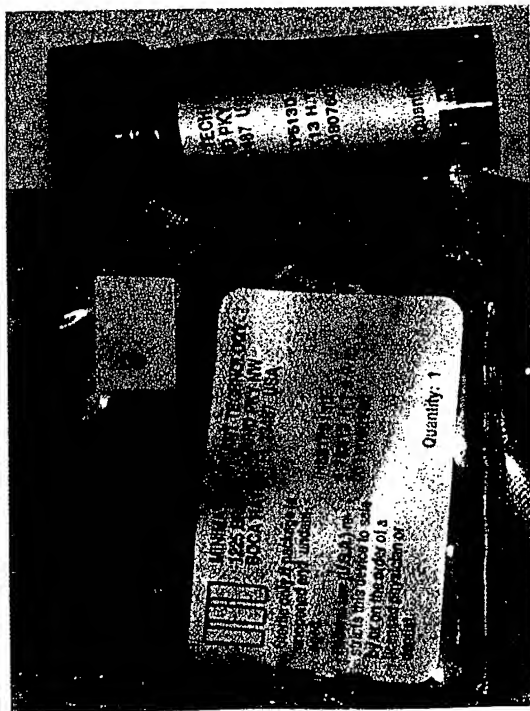
6. Interpore



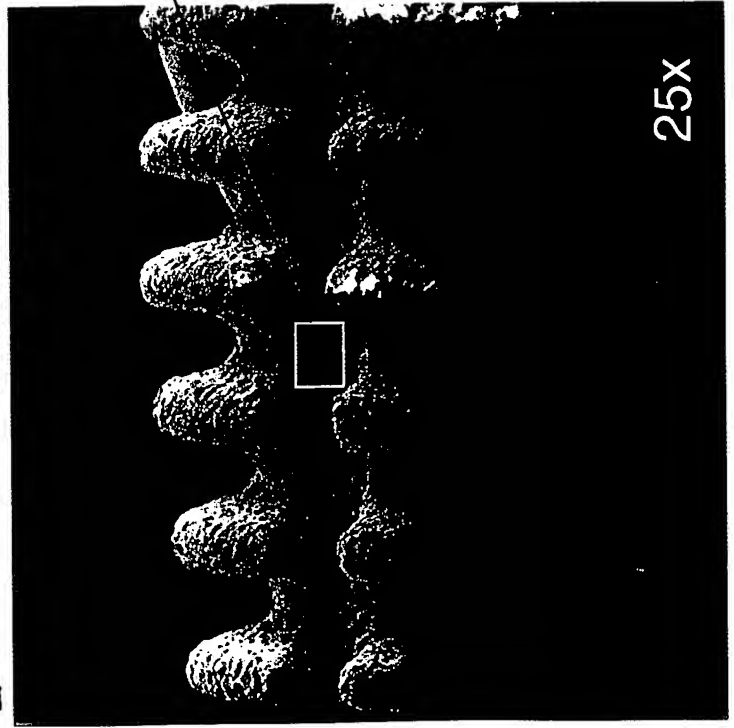
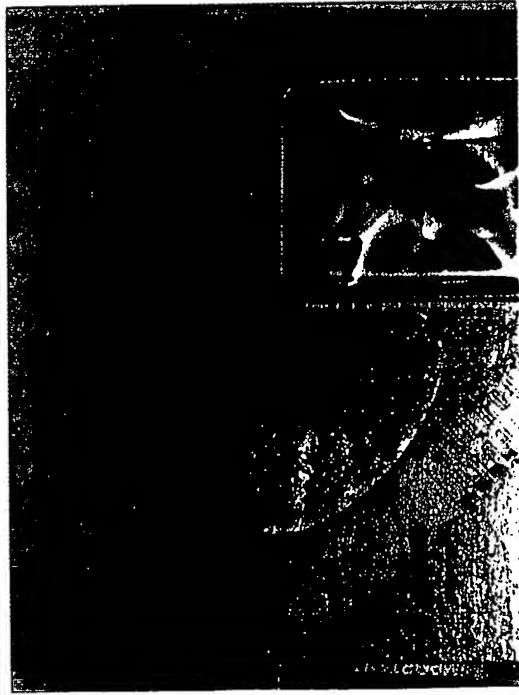
7. Interpore



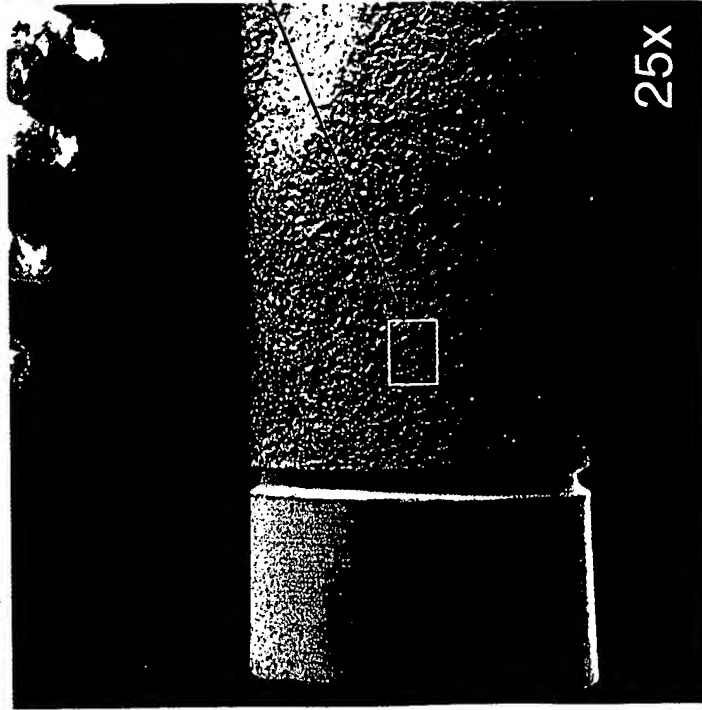
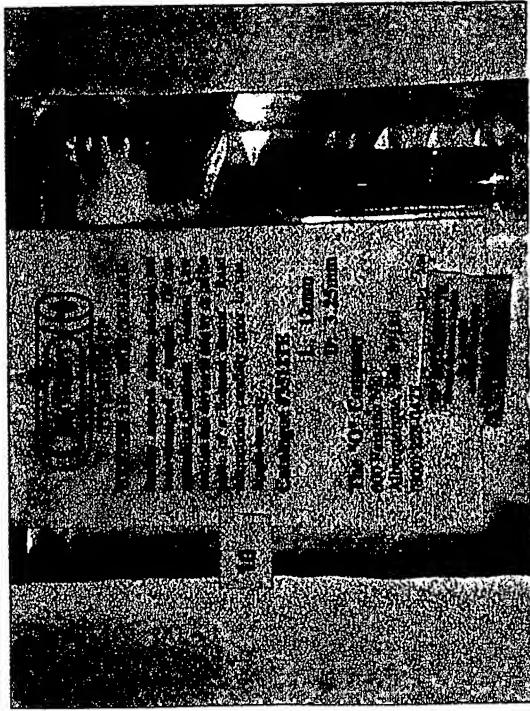
8. Minimatic



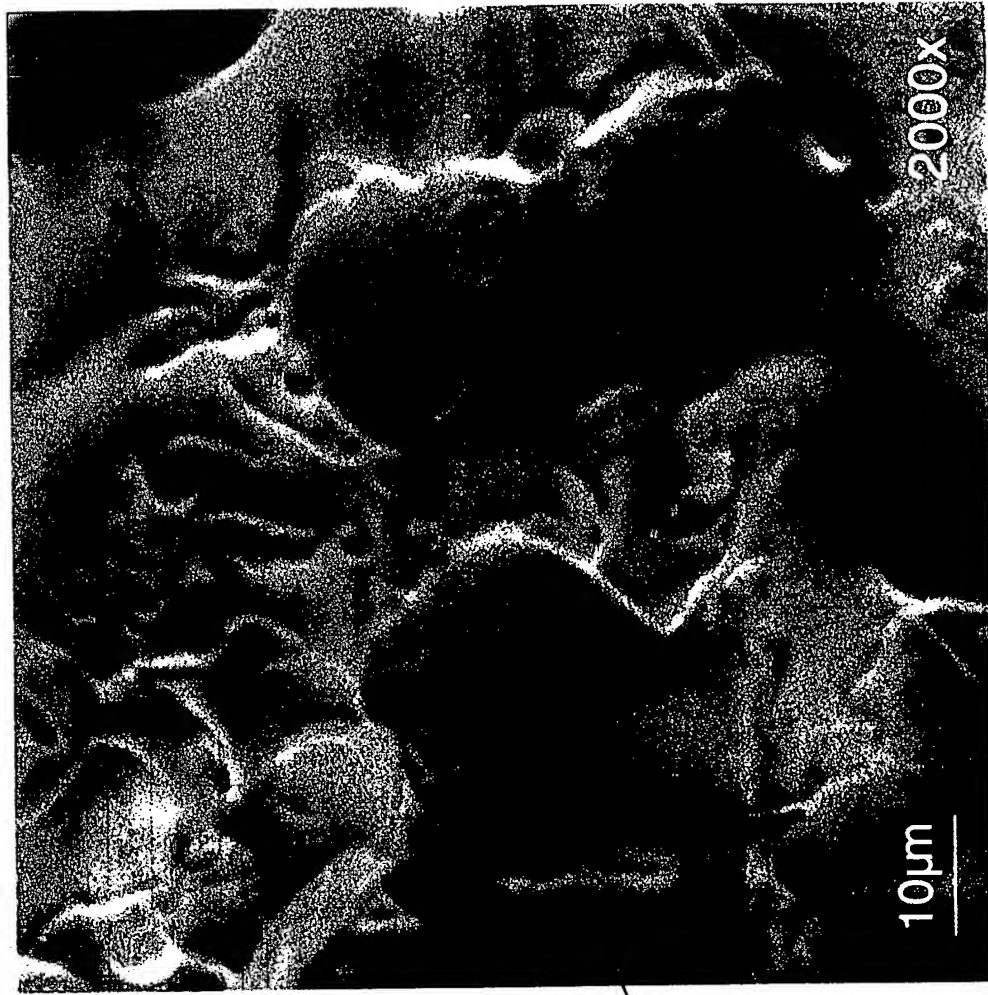
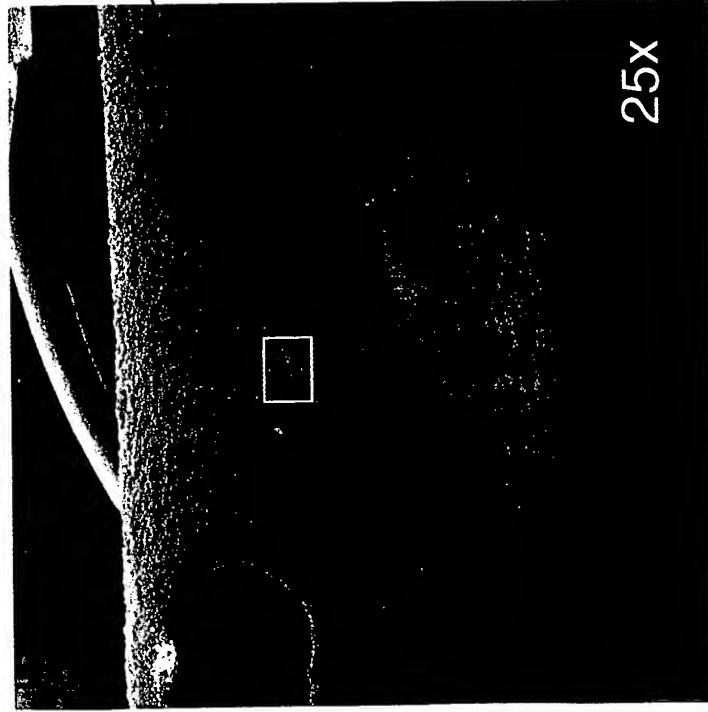
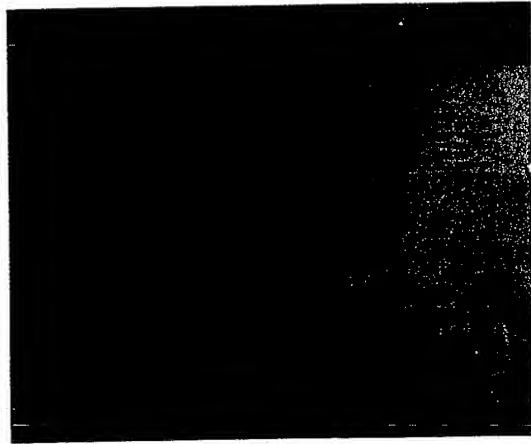
9. Stryker



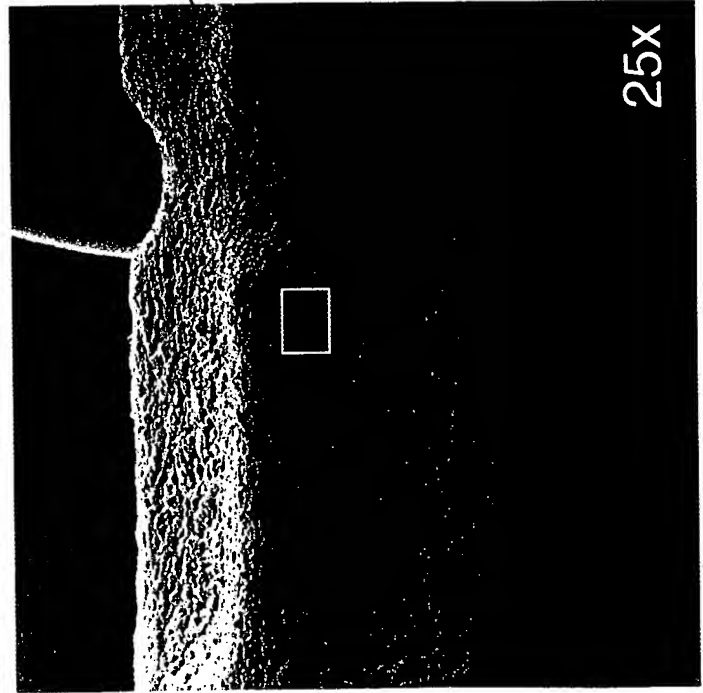
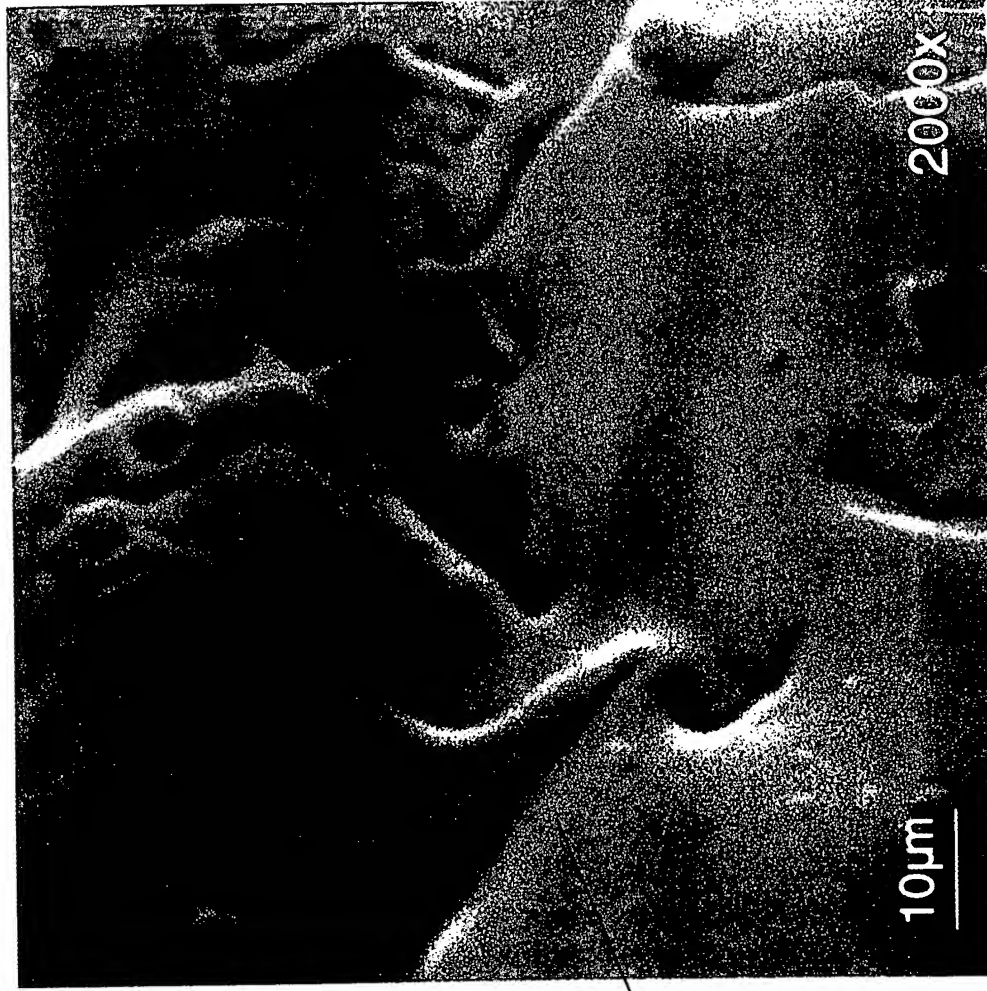
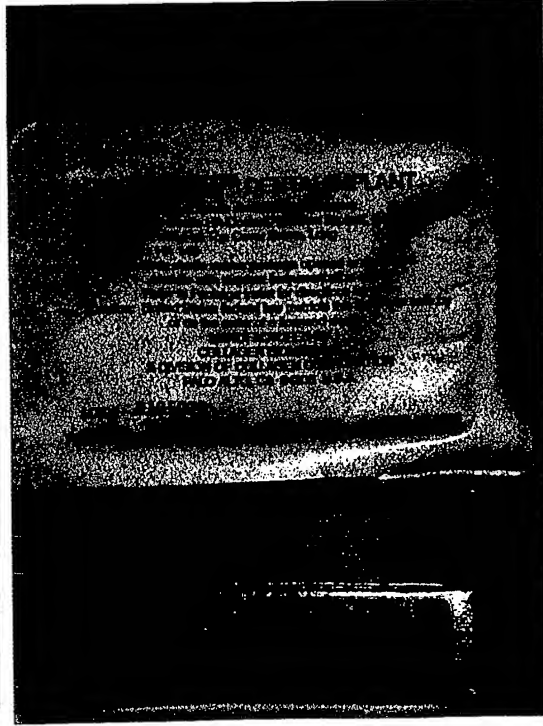
10. The "O" Company



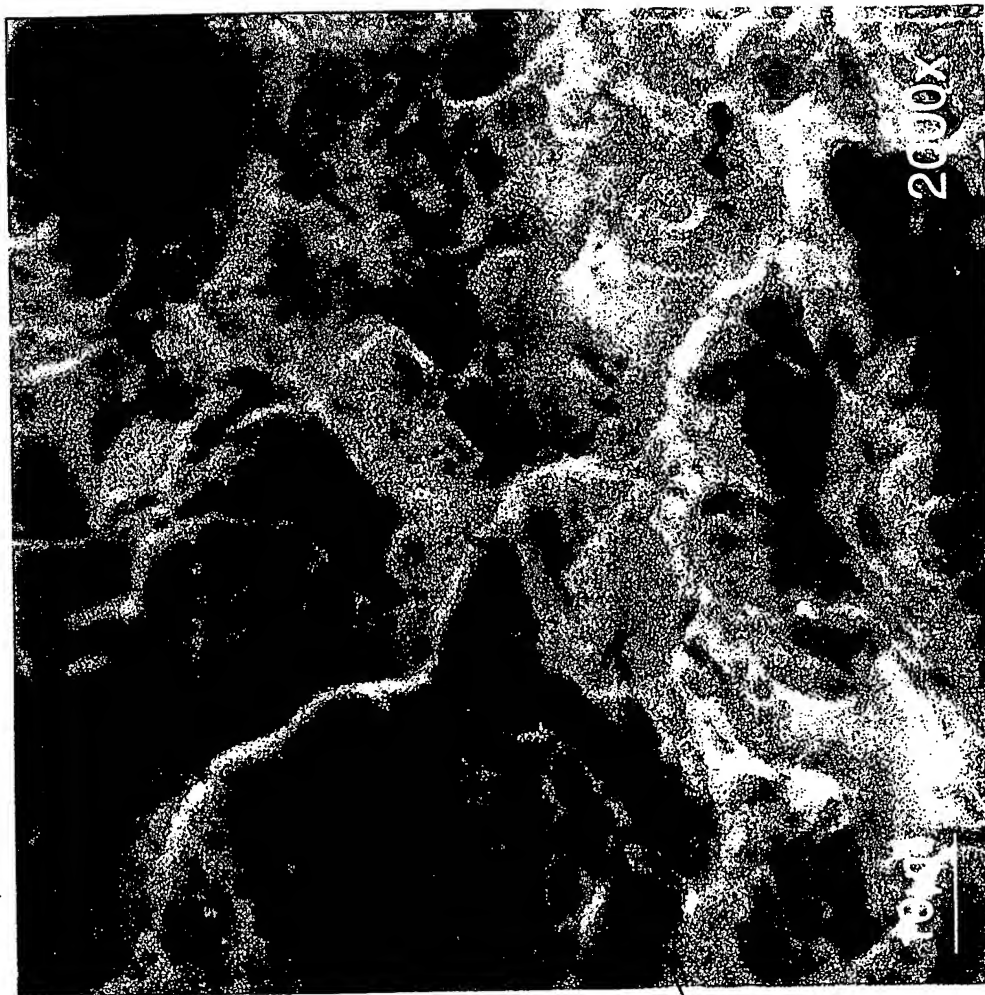
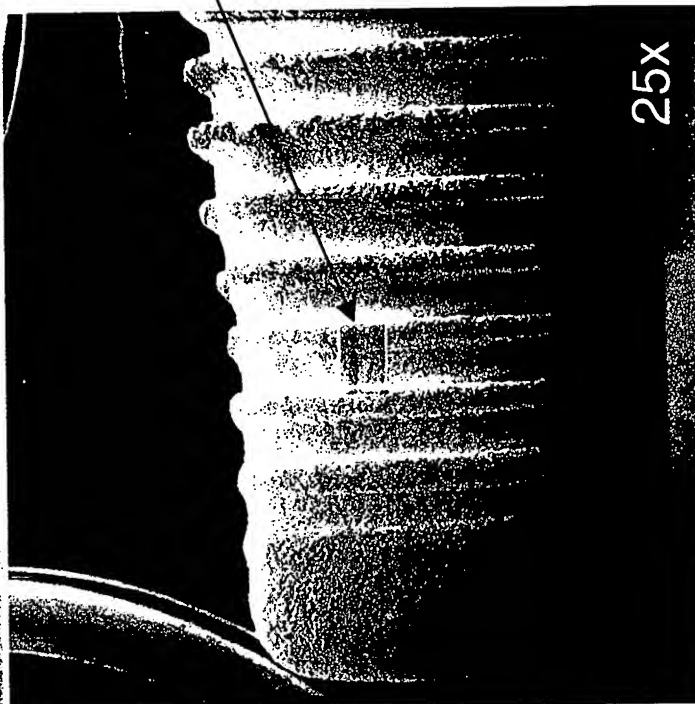
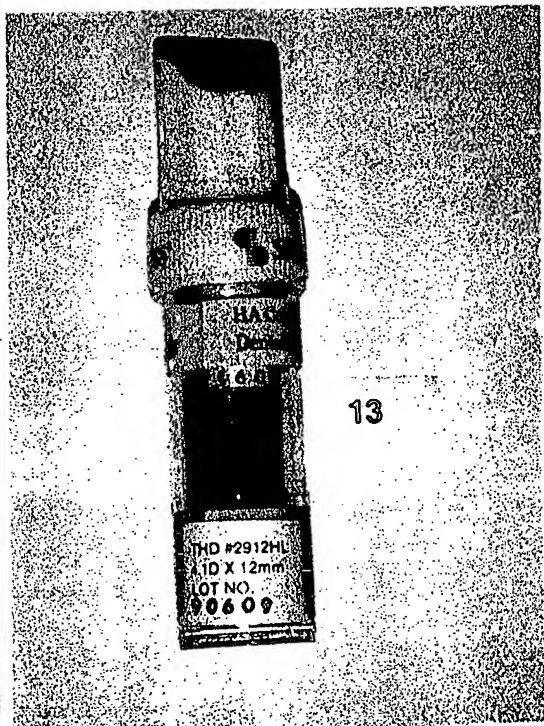
11. Impla-Med



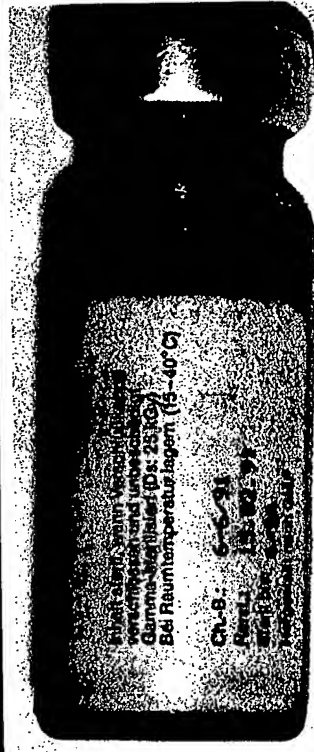
12. Collagen Biomedical



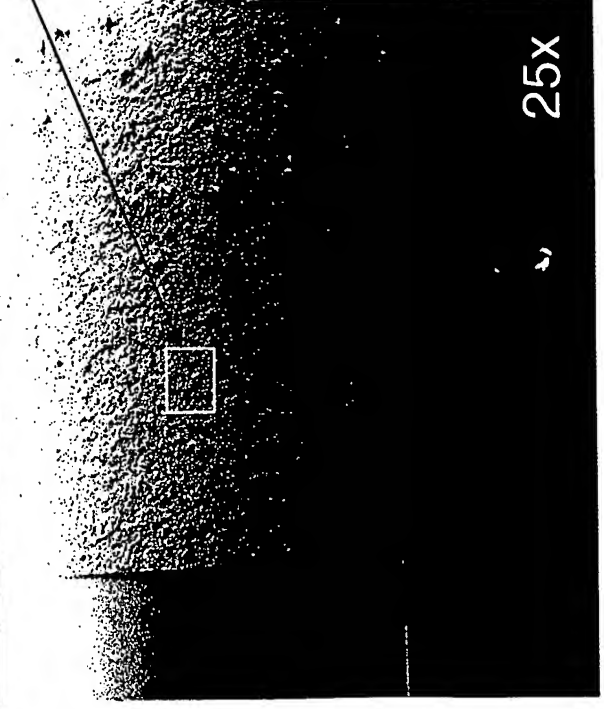
13. Steri-Oss



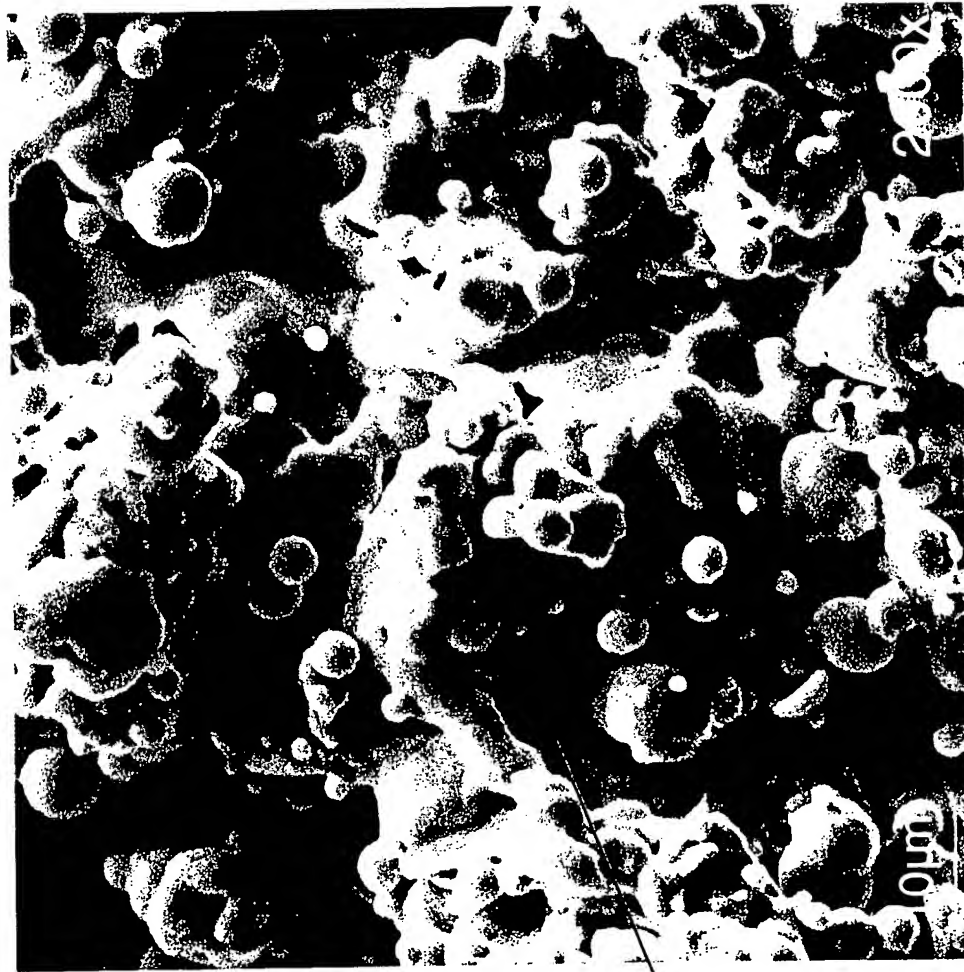
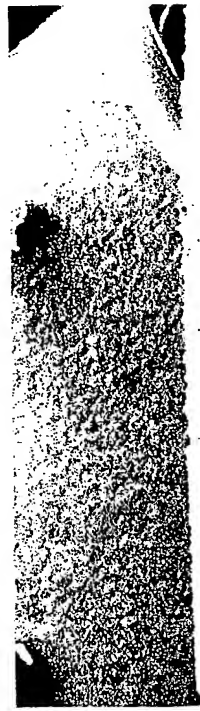
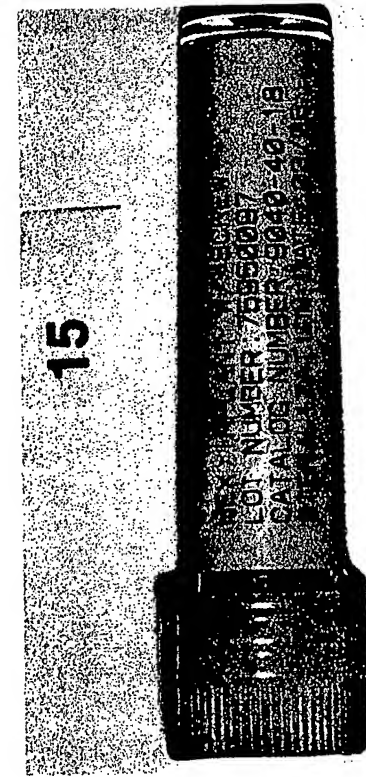
14. Friedrichsfeld



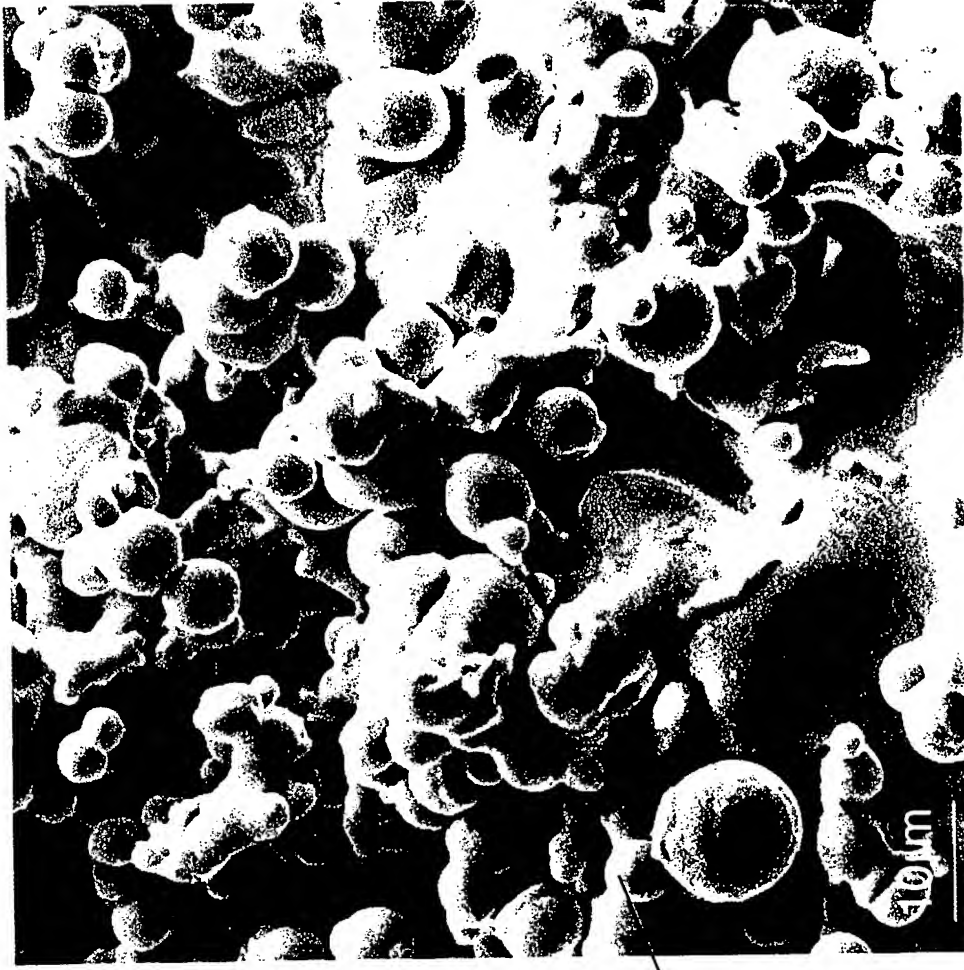
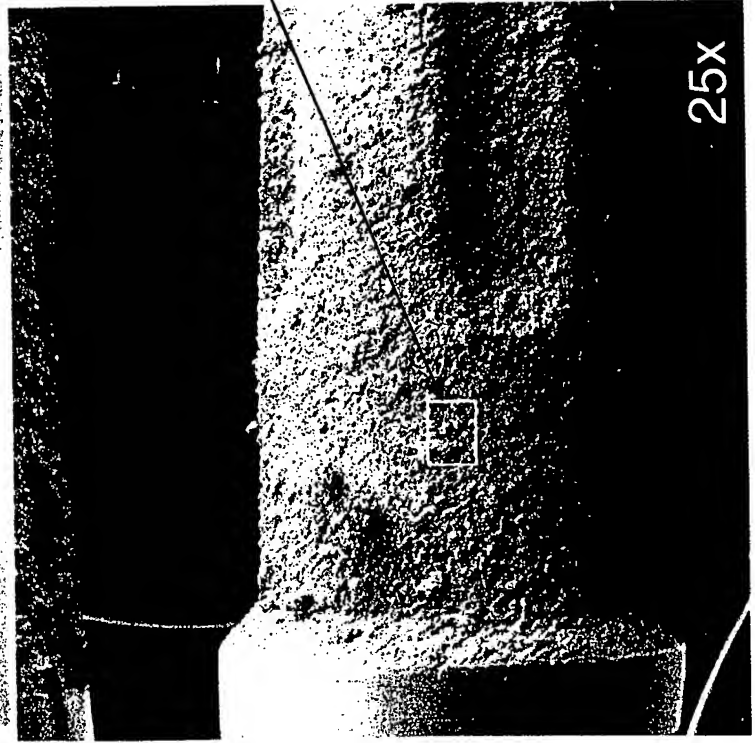
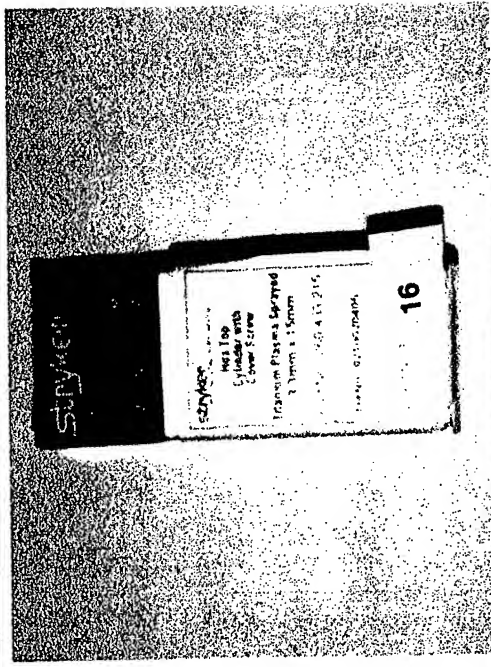
14



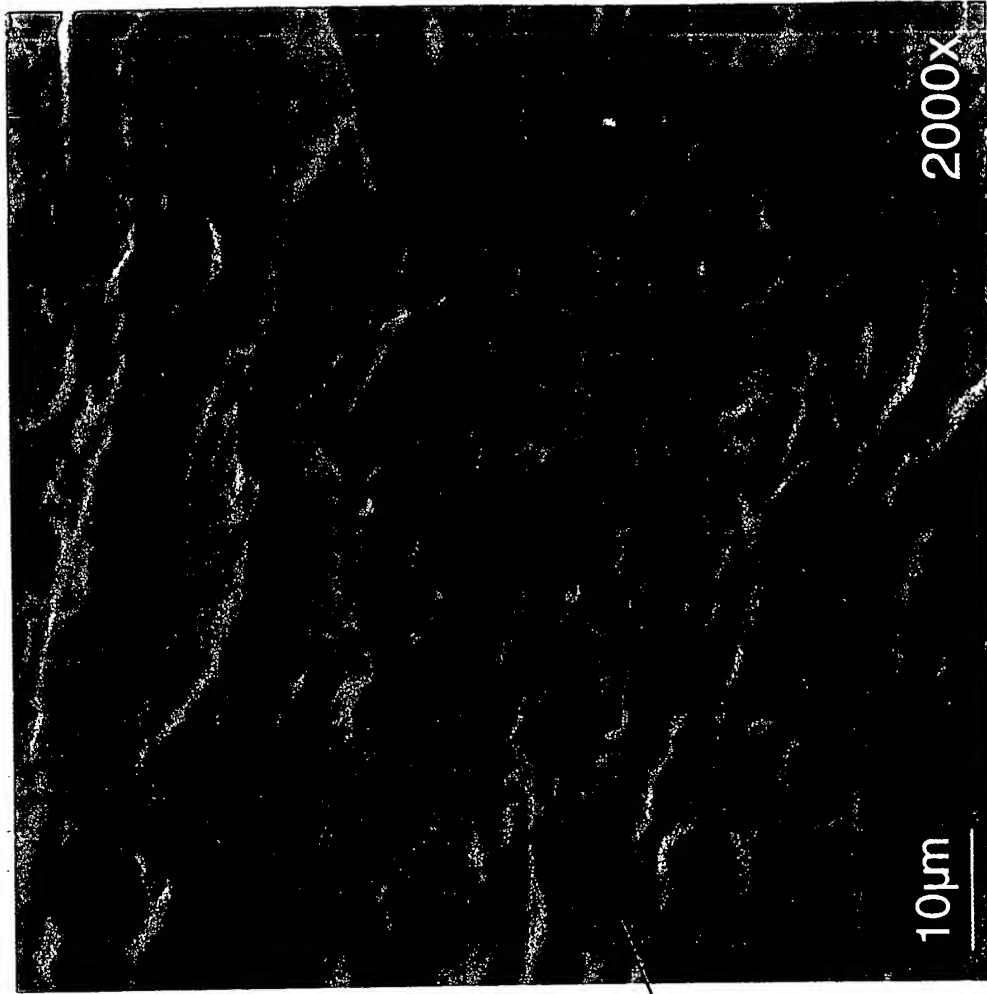
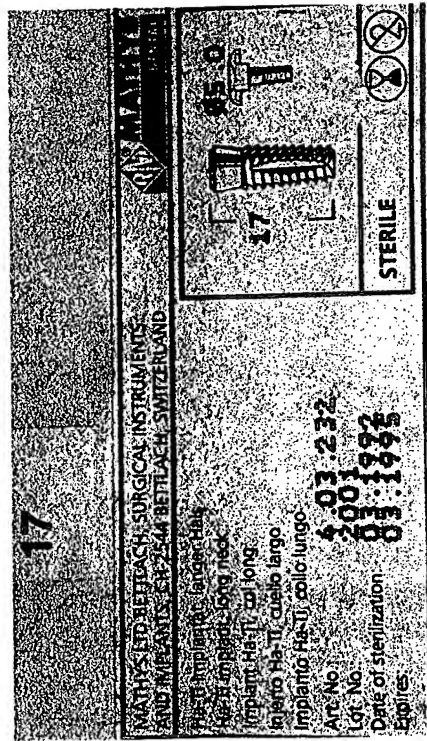
15. Lifecore Biomedical



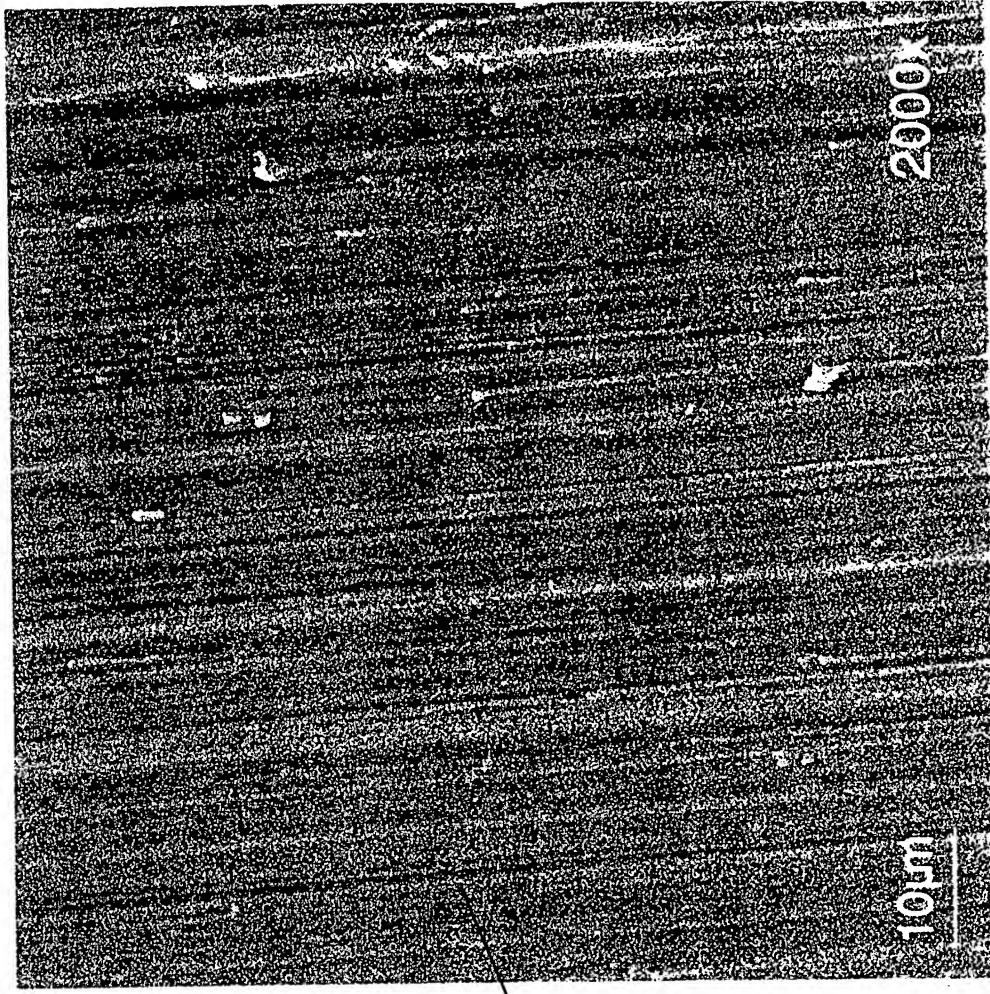
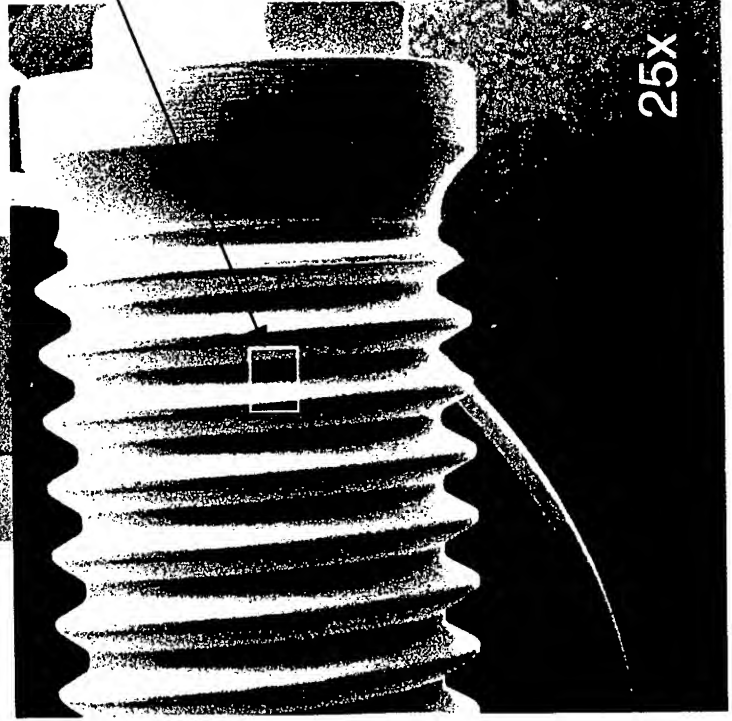
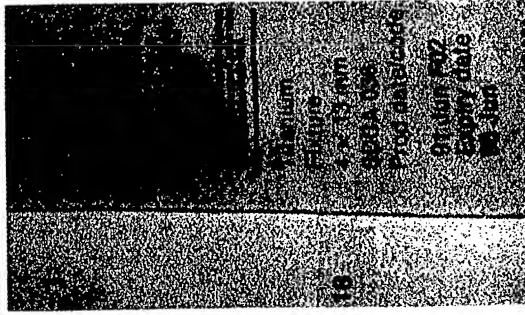
16. Stryker



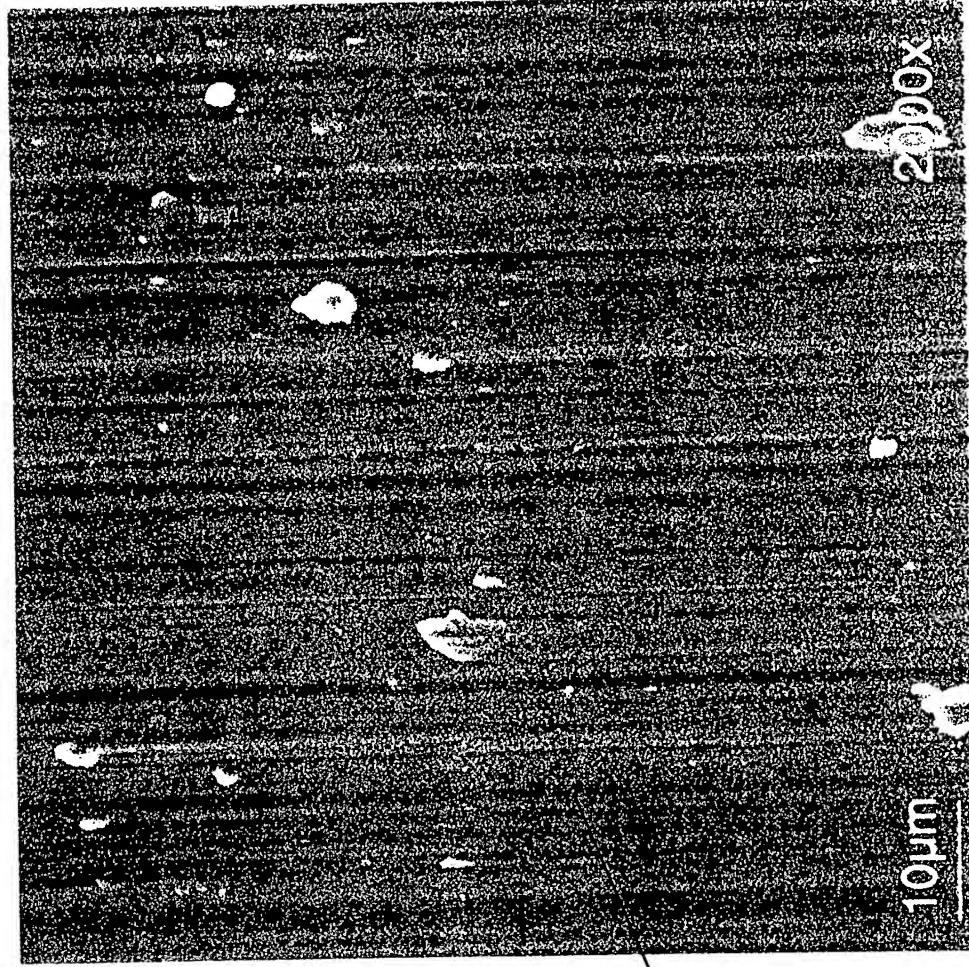
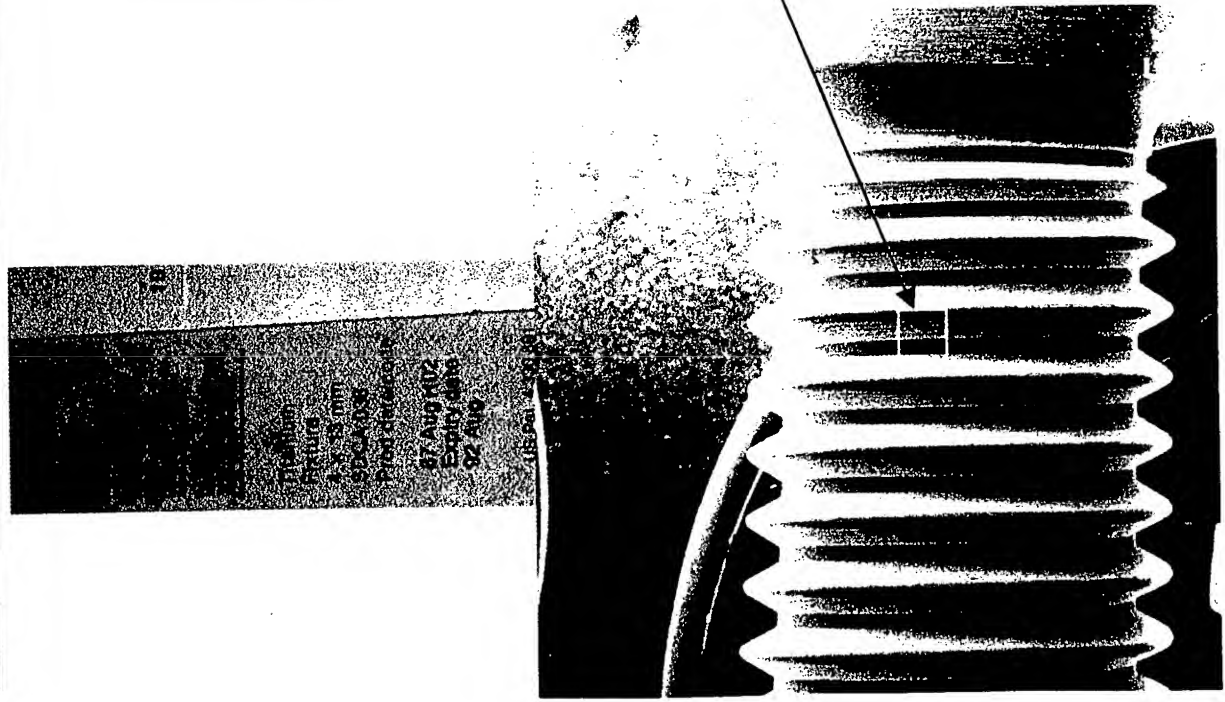
17. Mathys



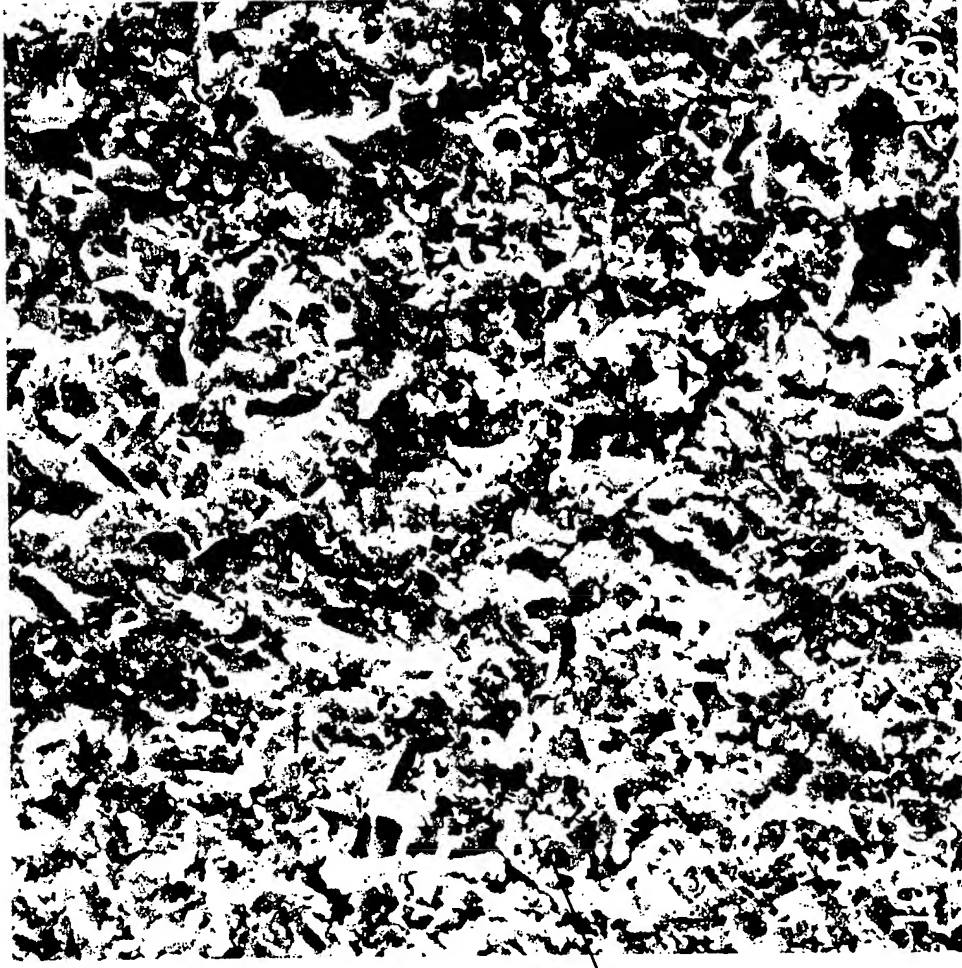
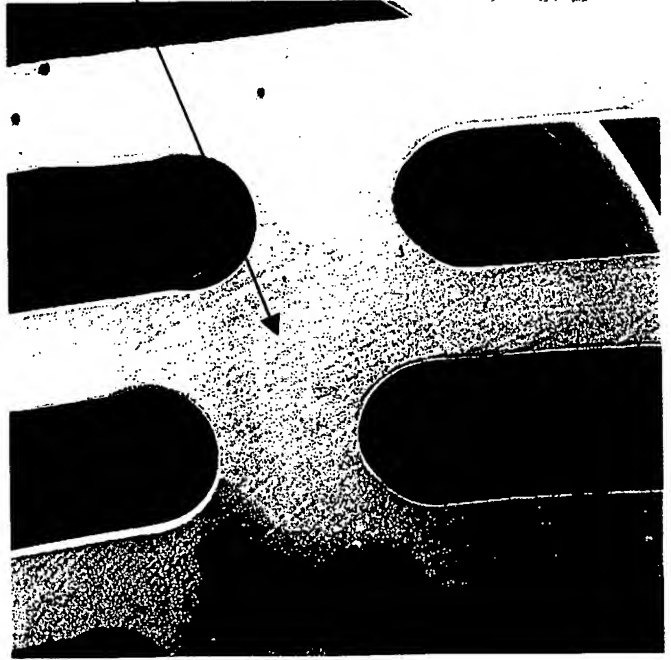
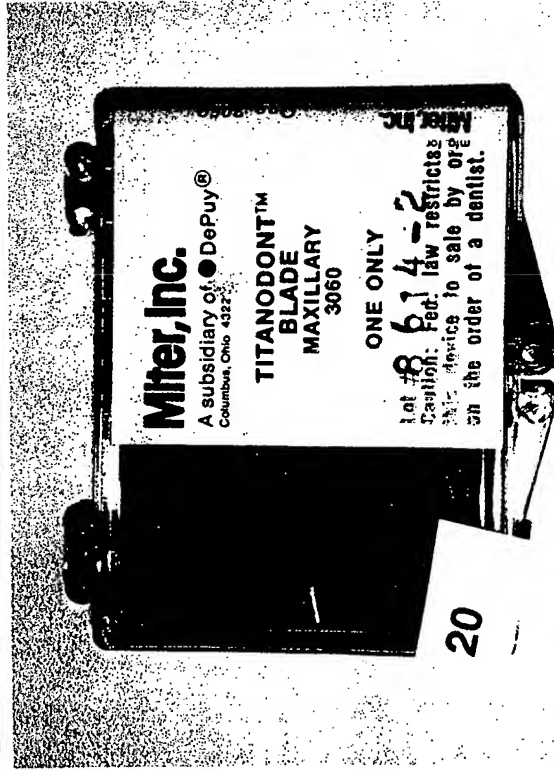
18. Nobelpharma



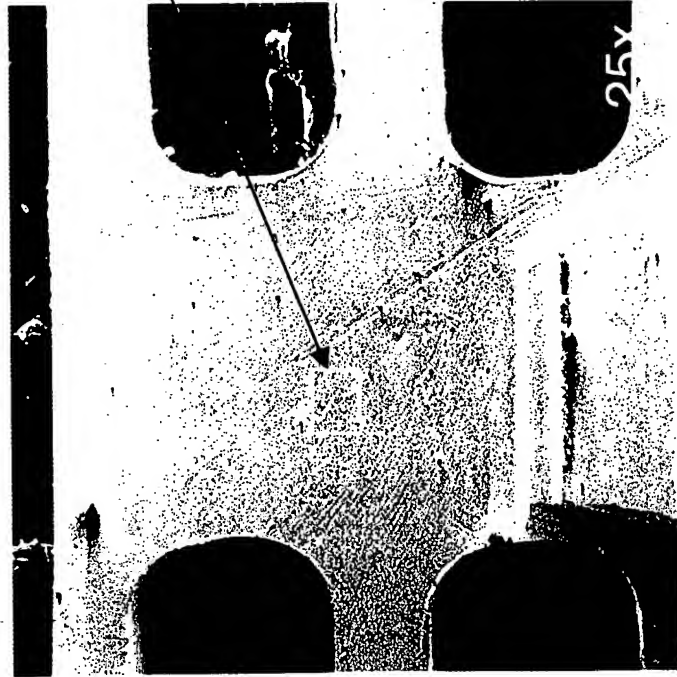
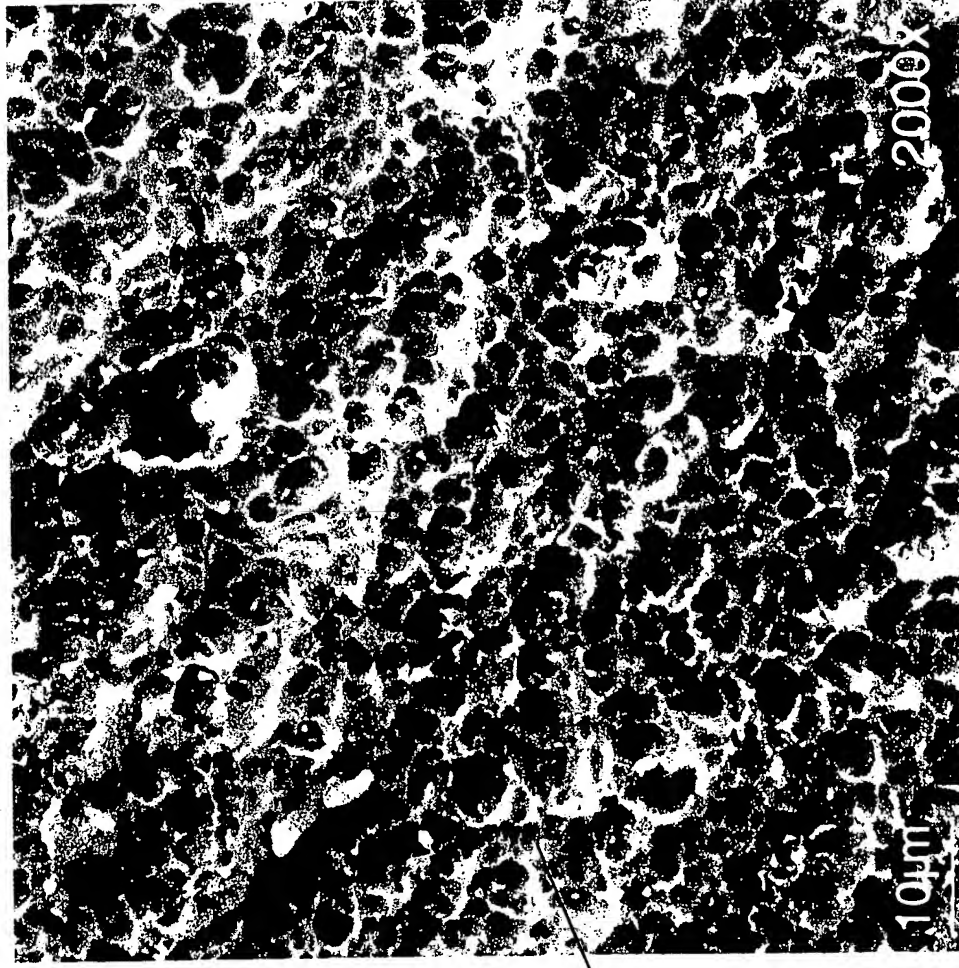
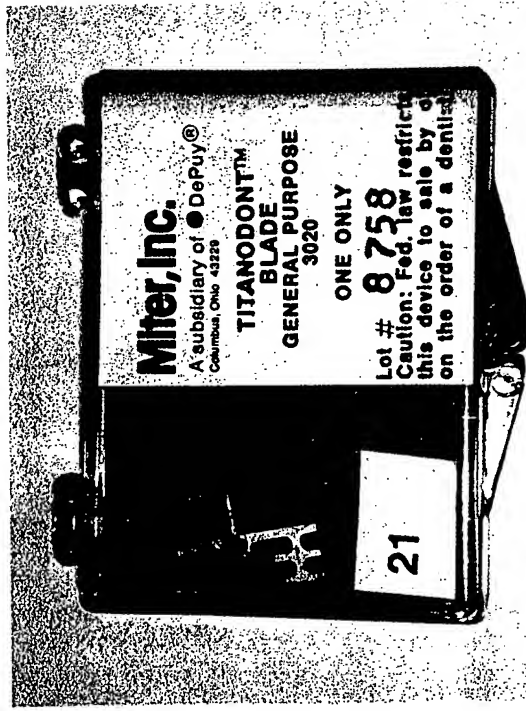
19. Nobelpharma



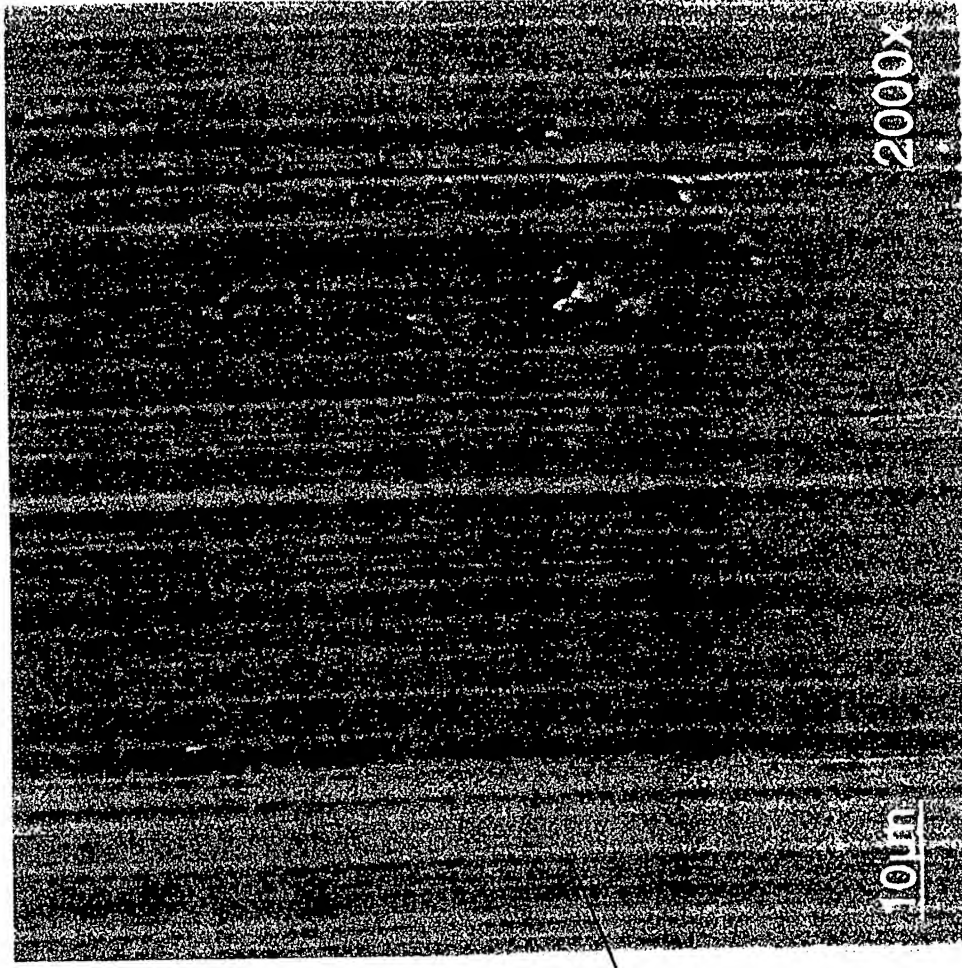
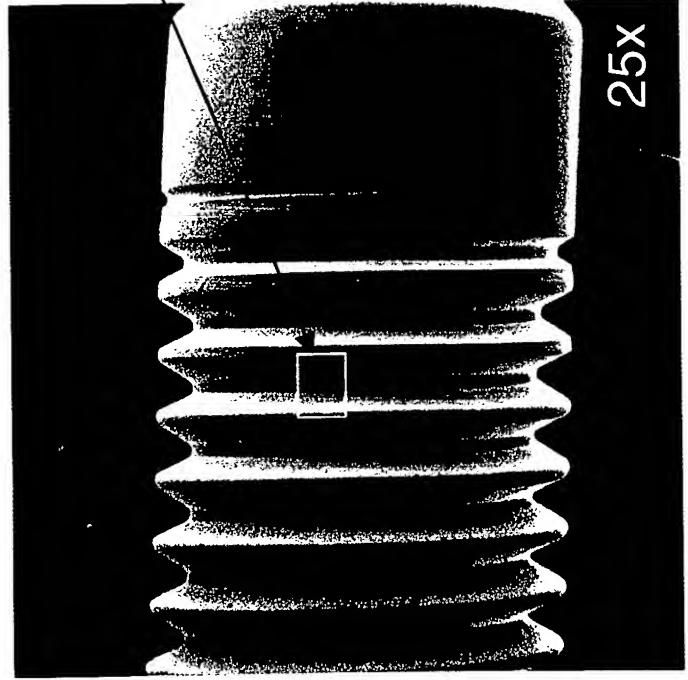
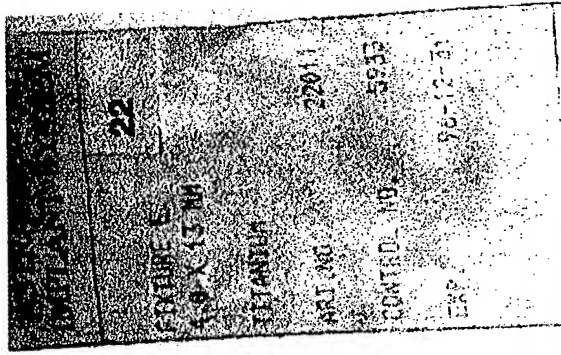
20. Miter, Inc.



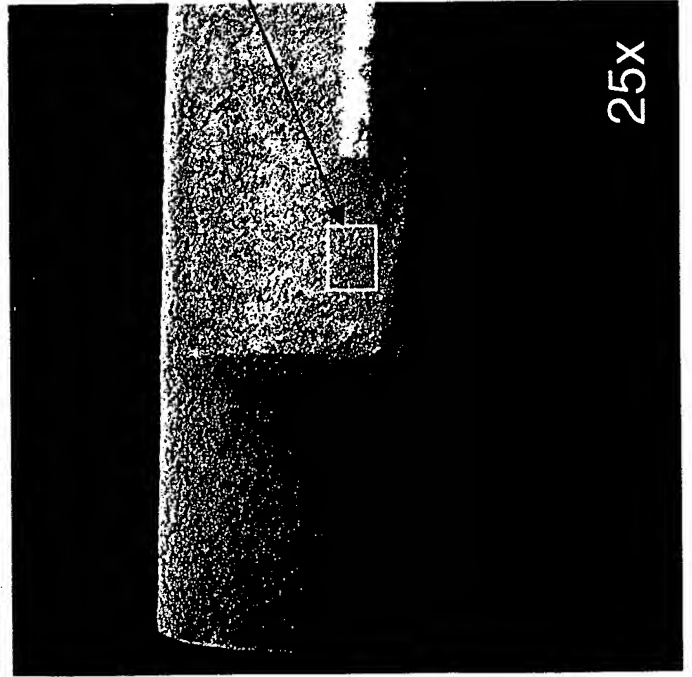
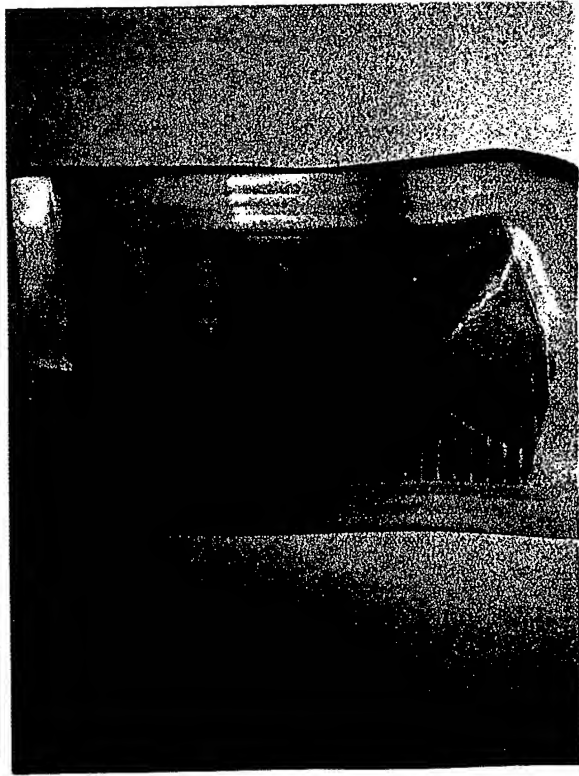
21. Miter, Inc.



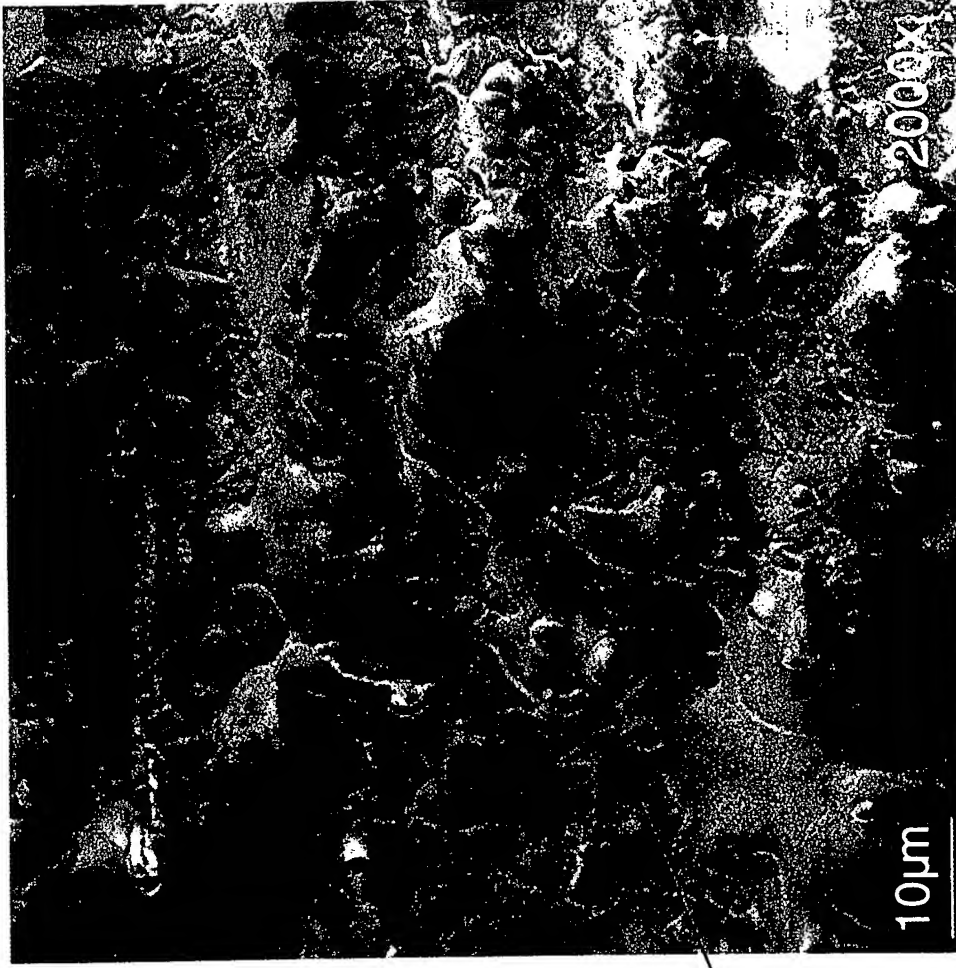
22. Astra Dental



23. Calcitek



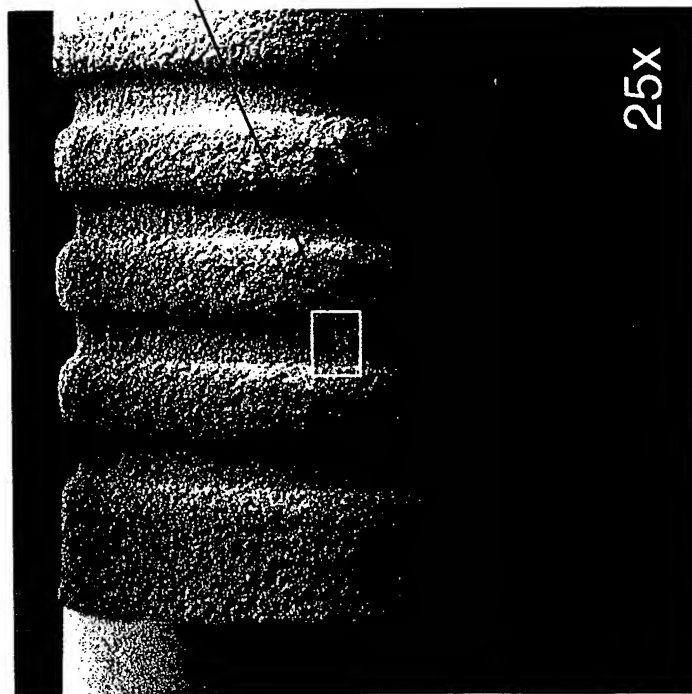
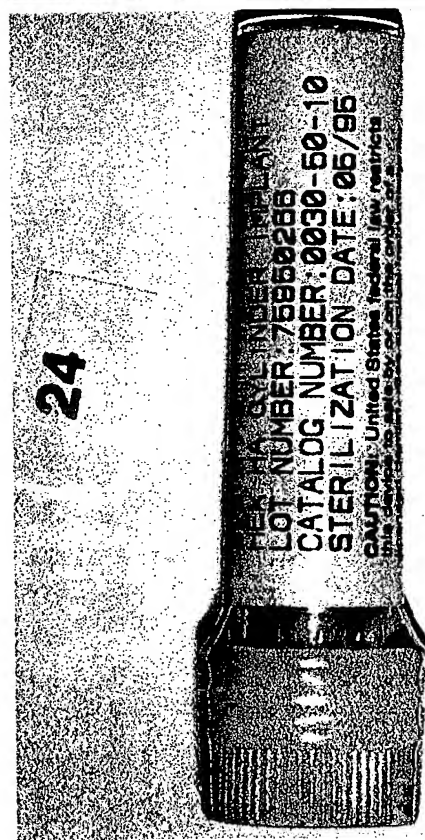
25x



10µm

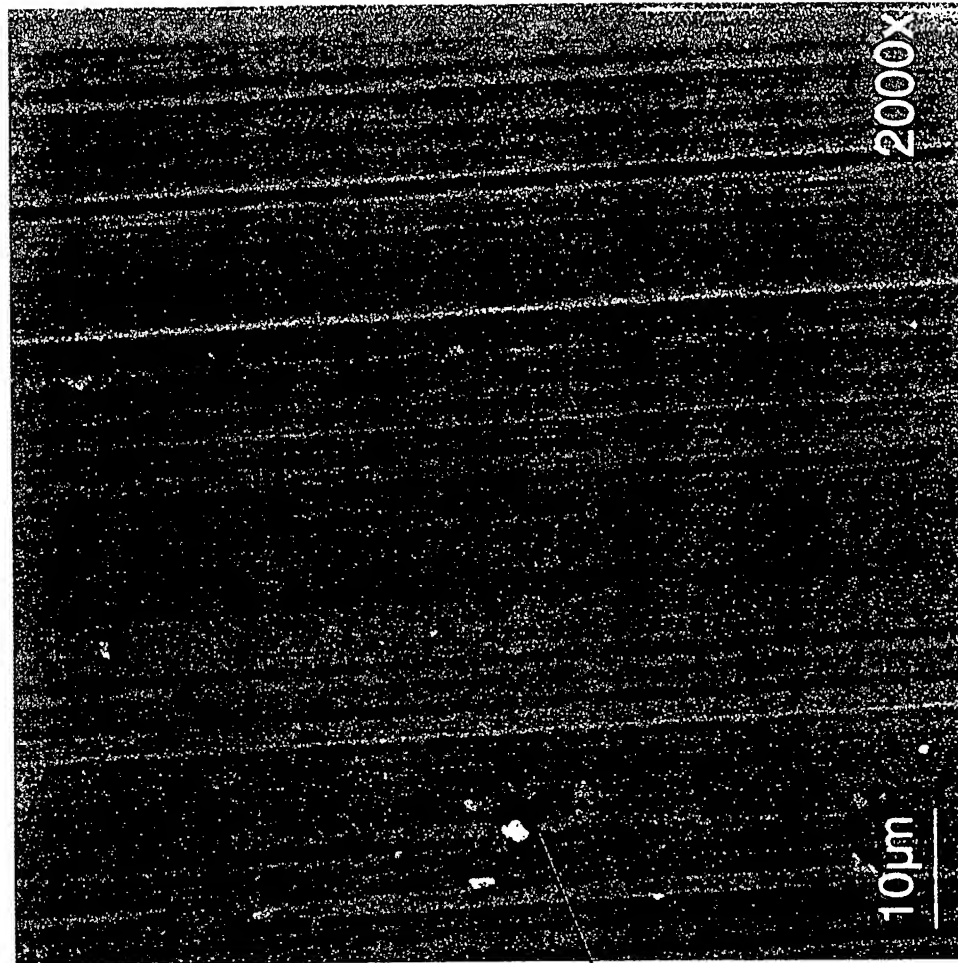
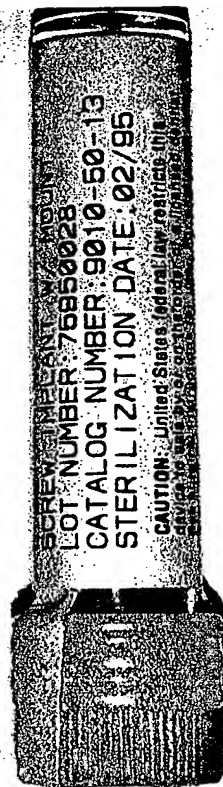
2000x

24. Lifecore Biomedical

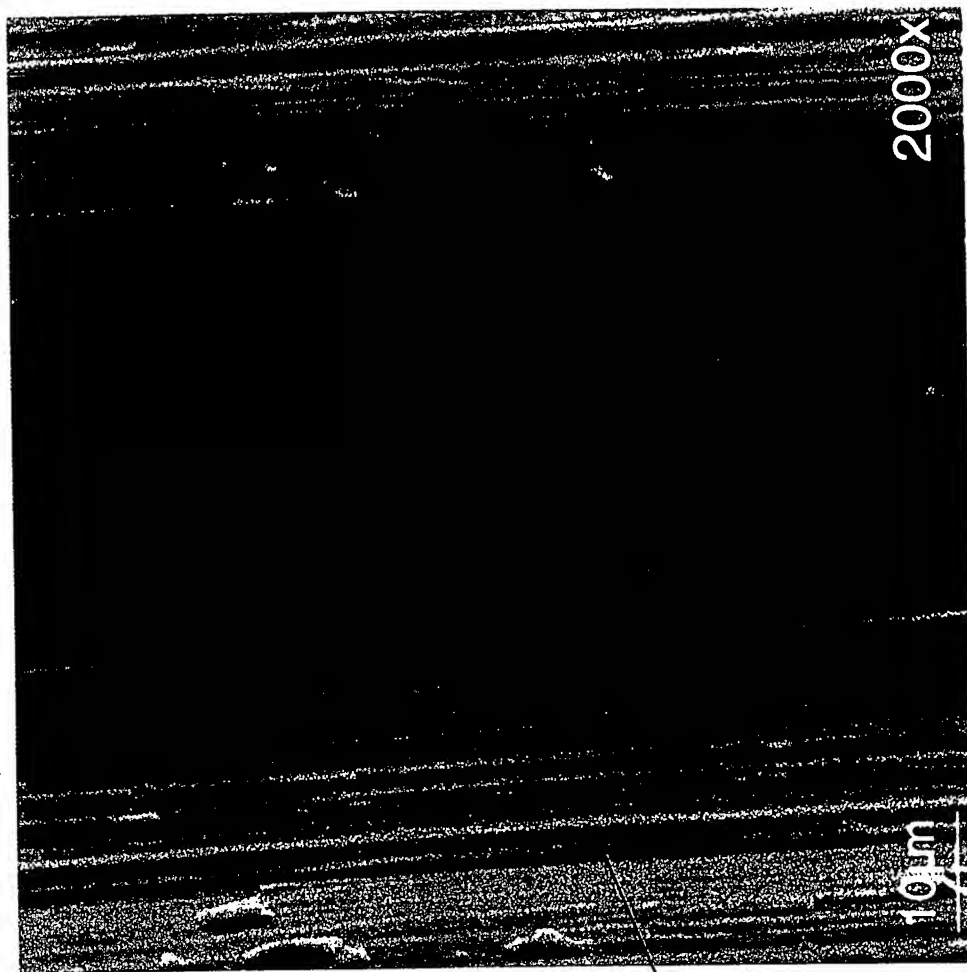
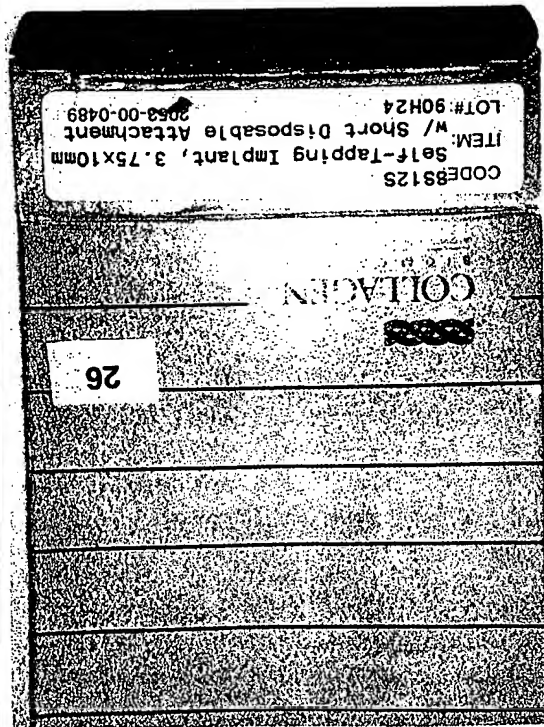


25. Lifecore Biomedical

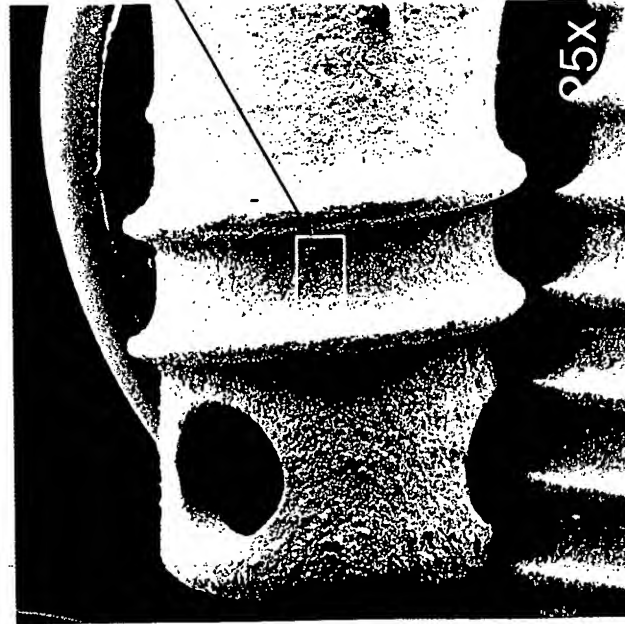
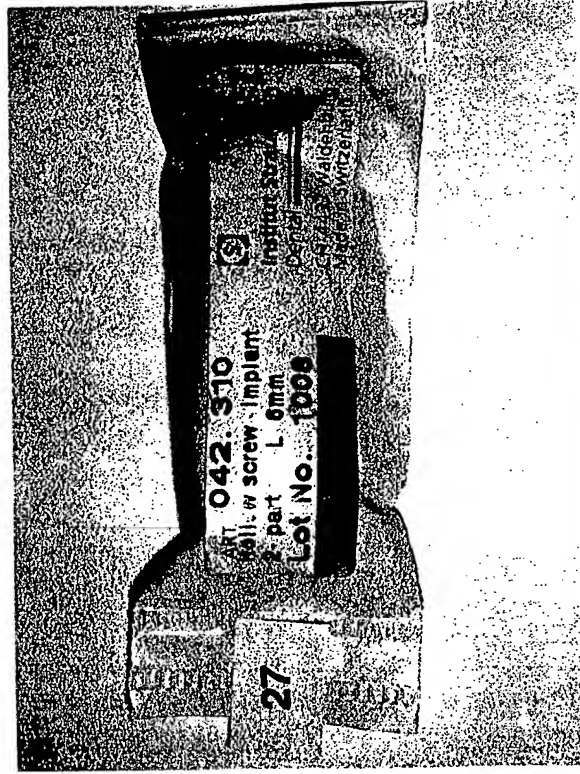
25



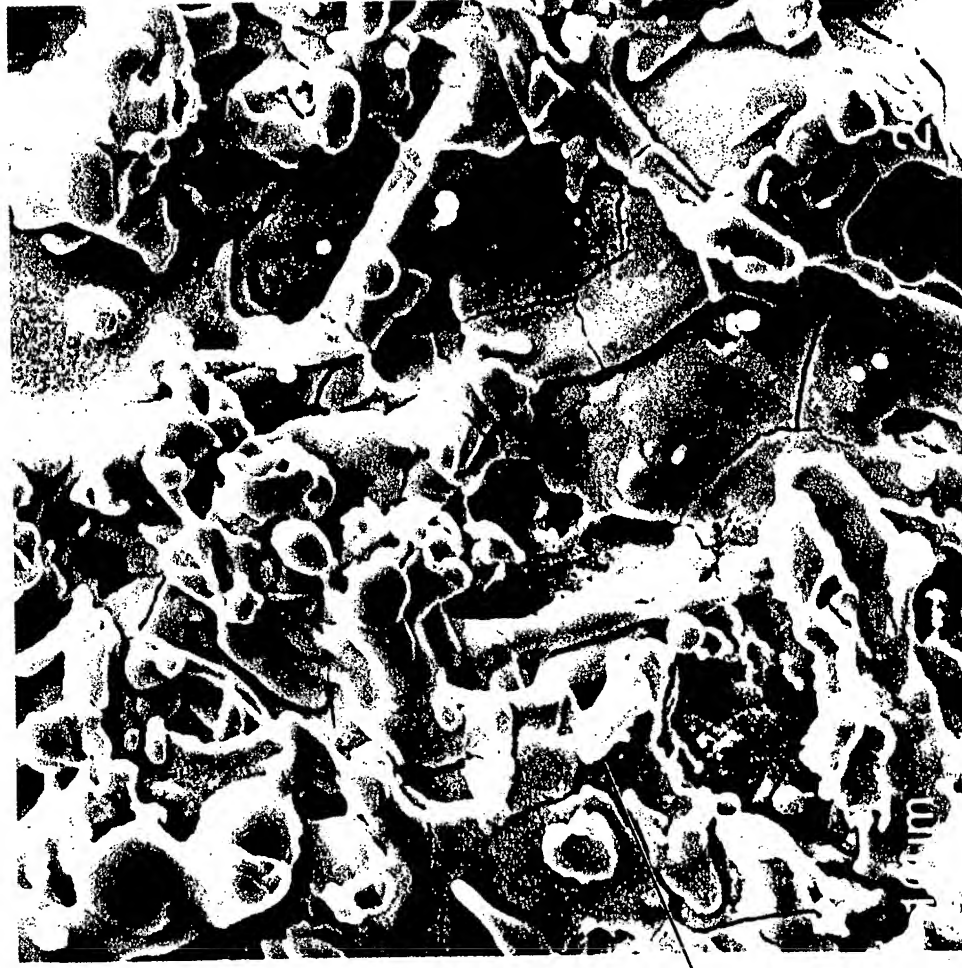
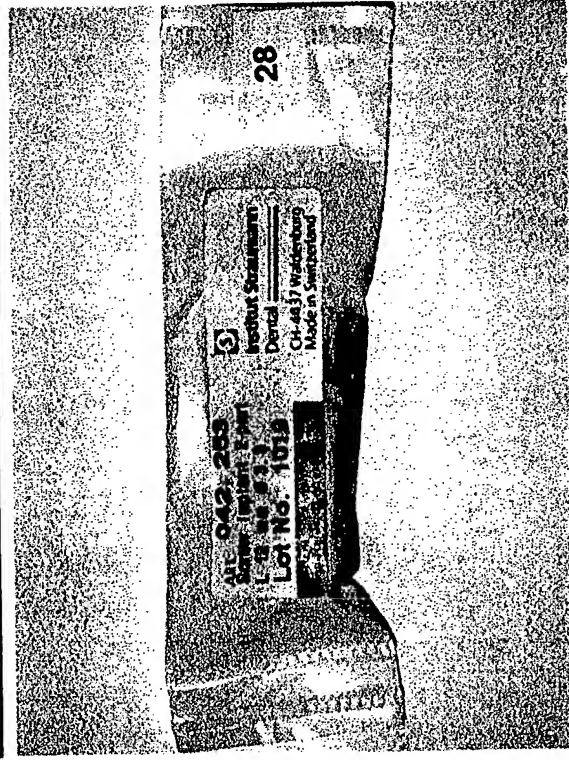
26. Collagen Biomedical



27. Institut Straumann



28. Institut Straumann



29. Astra Tech

ASTRA TECH
401 N. 1st St.
Tulsa, OK 74103
ASTRA
EXP. DATE: 01-01-01

29

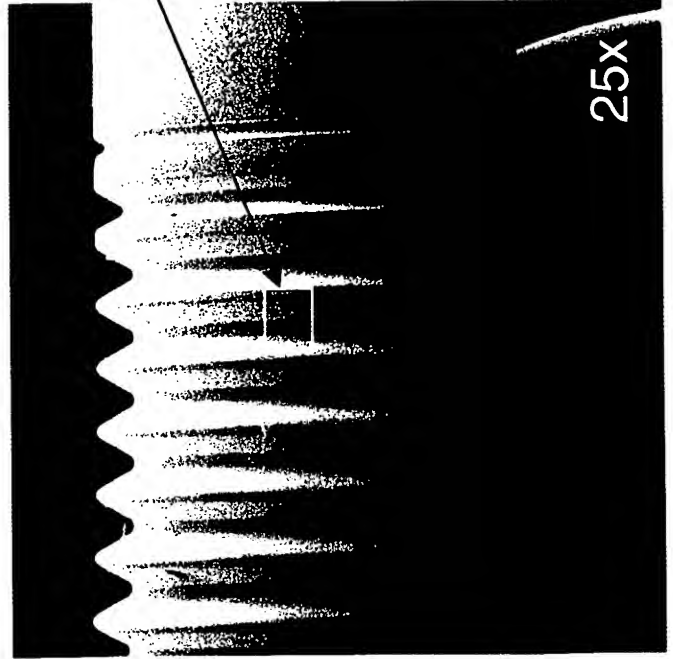
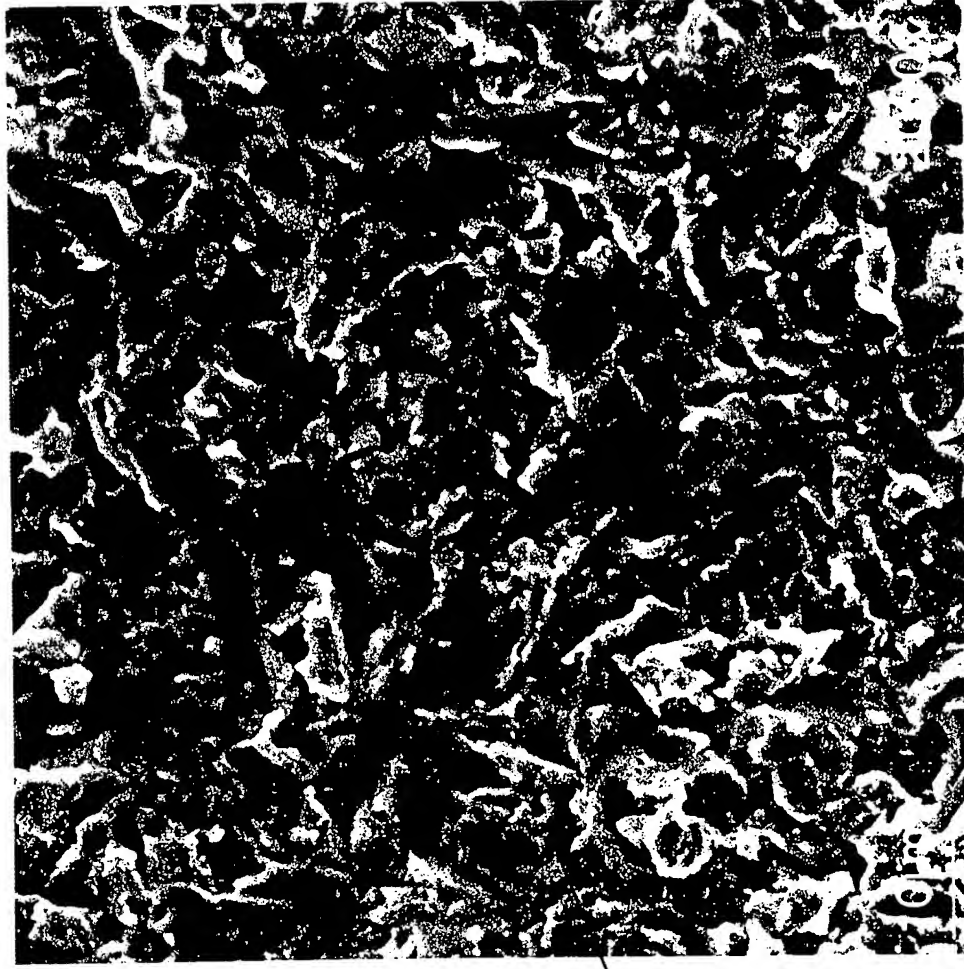
ASTRA TECH IMPLANTS

DENTAL SYSTEM

STERILE Single use

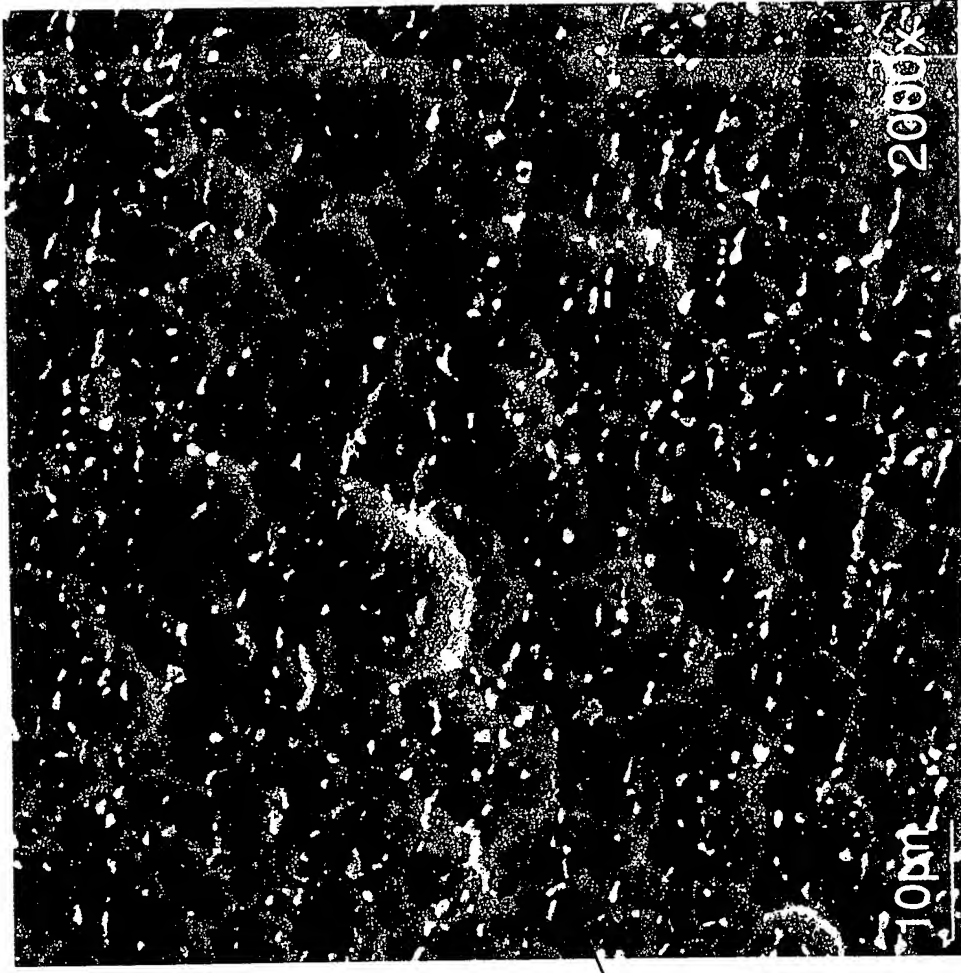
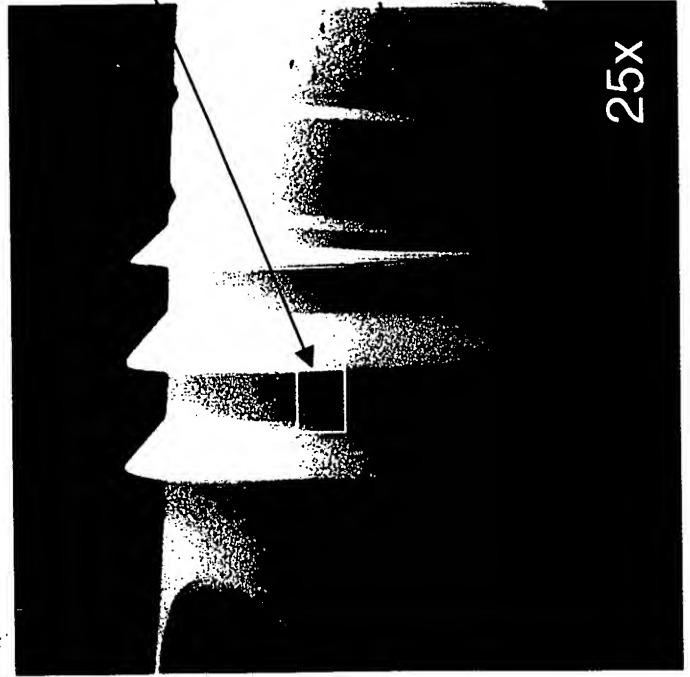
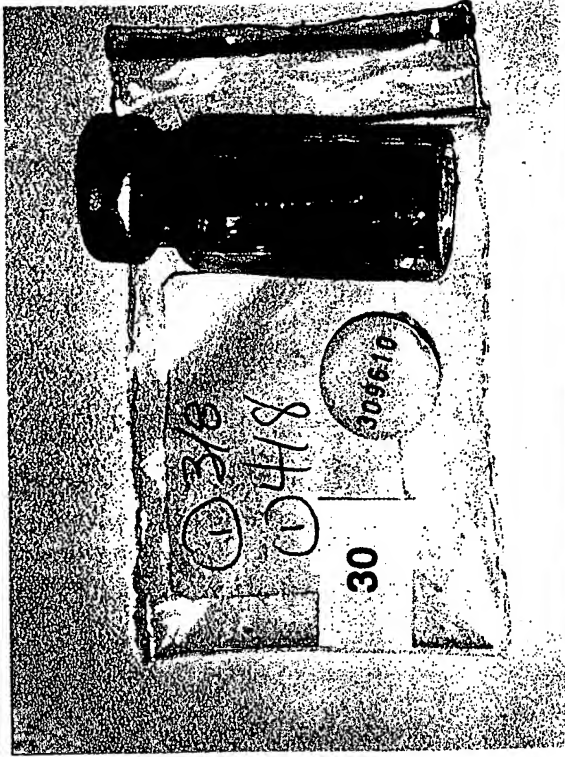
Acrylic / Resin
Polyurethane / Ethylene oxide
Acrylic / Resin
Polyurethane / Ethylene oxide
Acrylic / Resin
Polyurethane / Ethylene oxide

ASTRA
ASTRA TECH

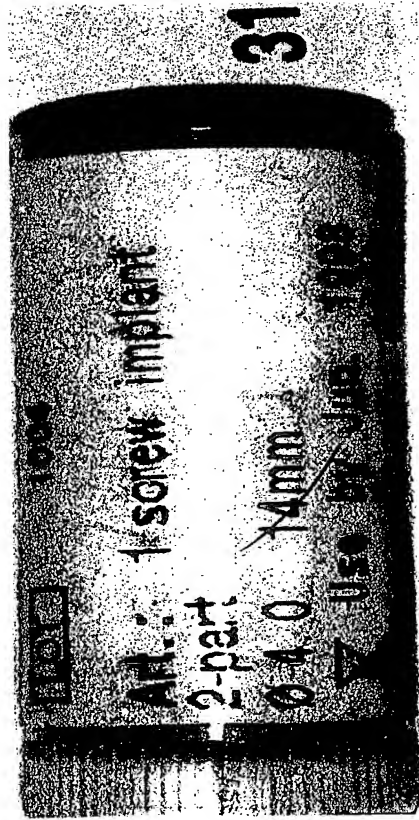


25x

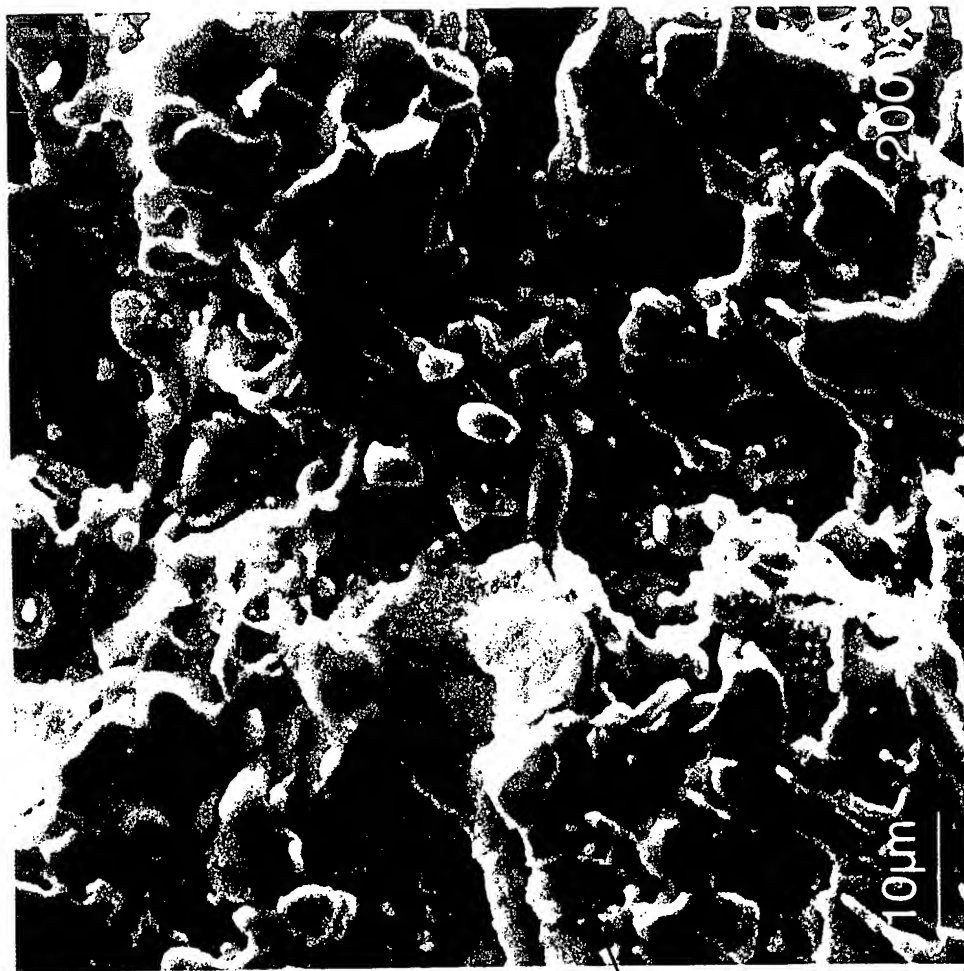
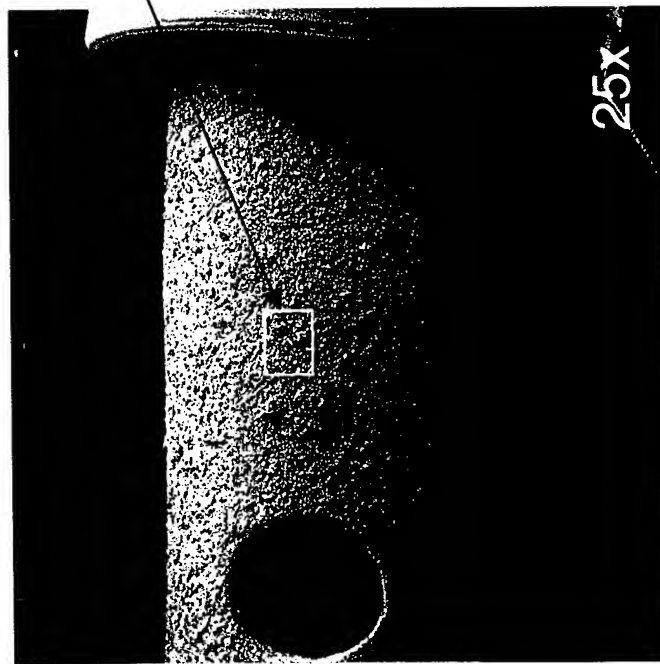
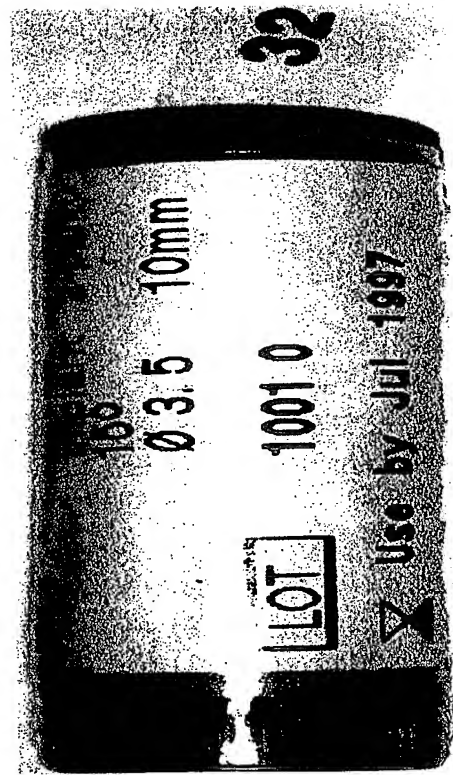
30. Core-Vent



31. Straumann

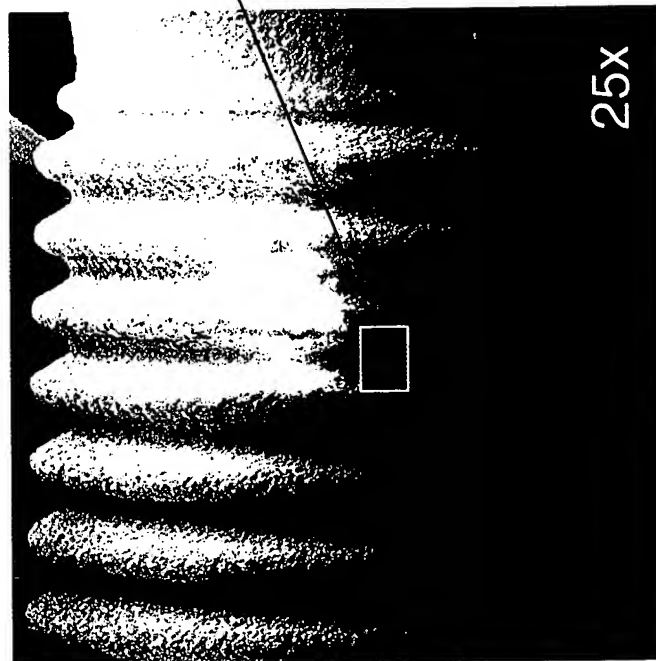
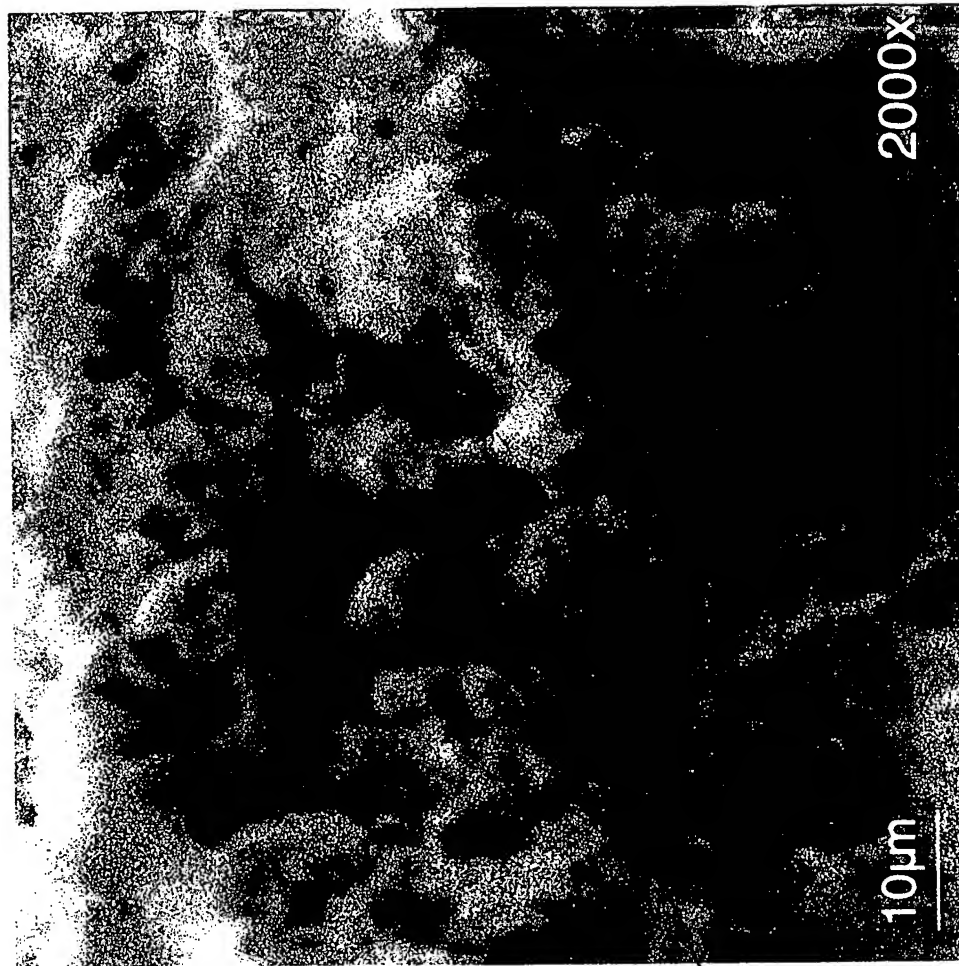


32. Institut Straumann



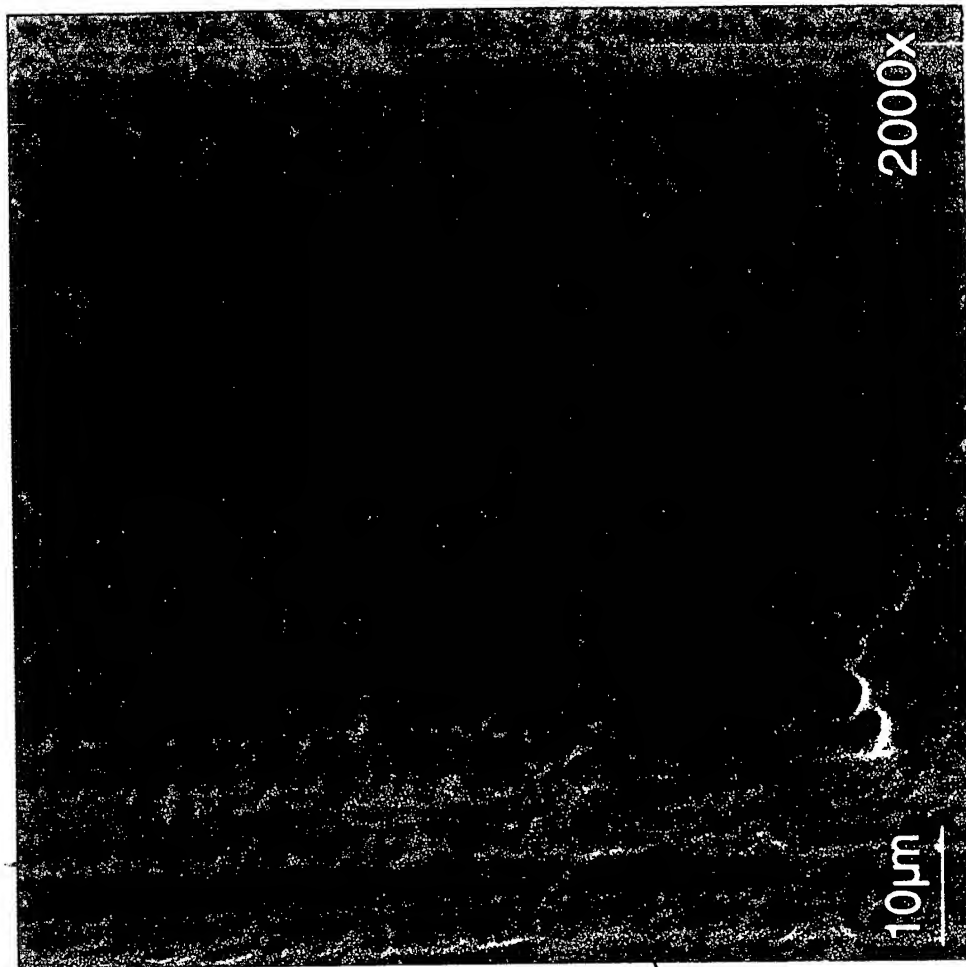
33. Dentsply Core-Vent

33

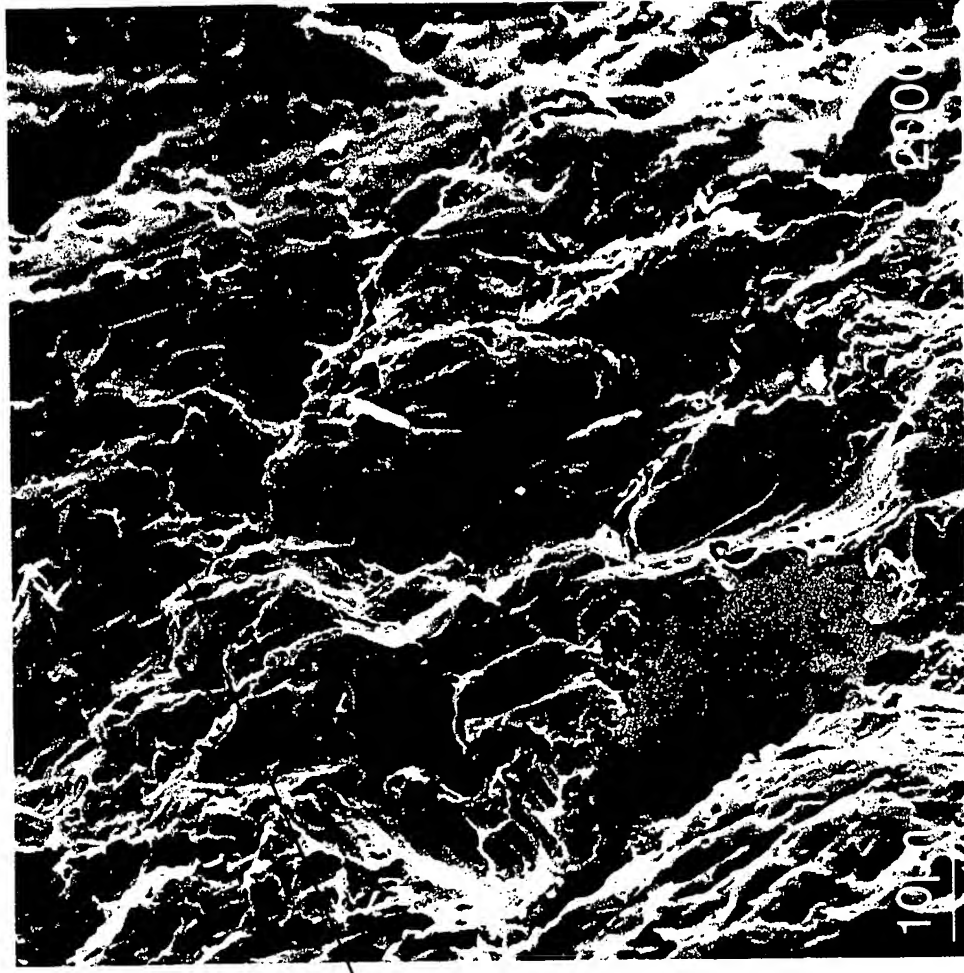


34. Dentsply Core-Vent

34



35. Cherchev Implant



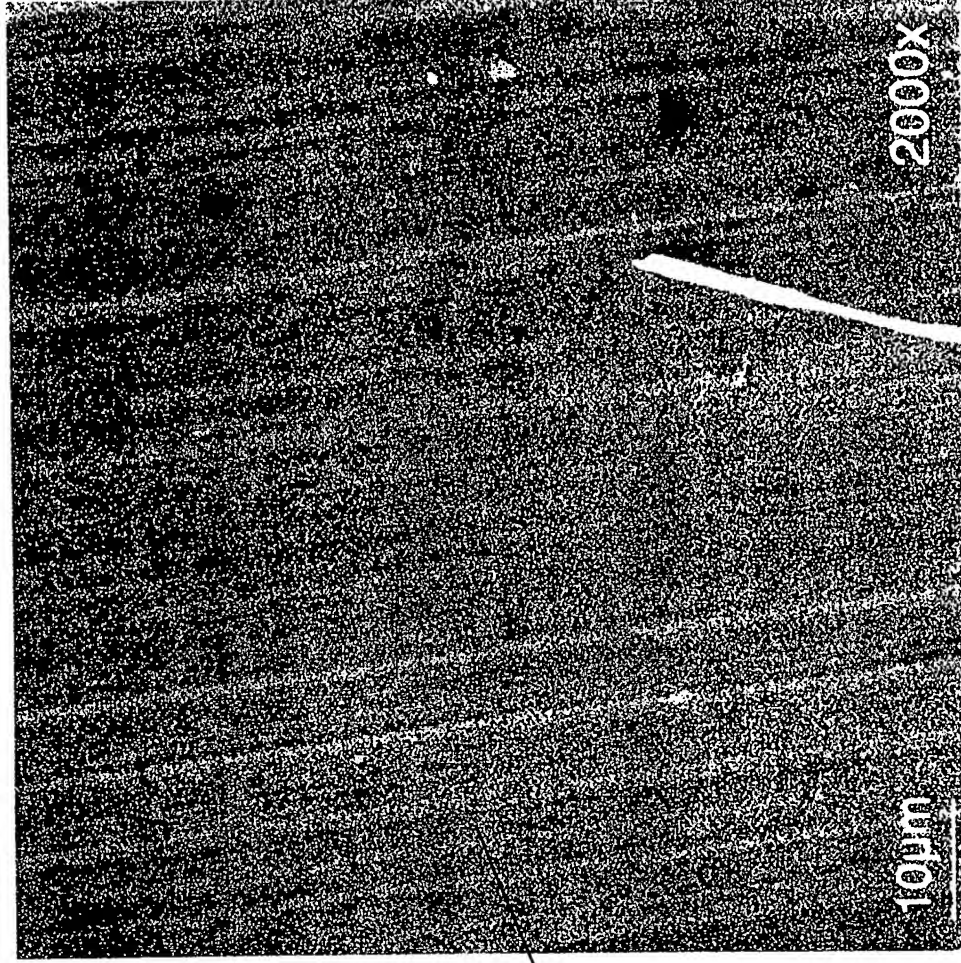
36. Samson Titanium Screw



36



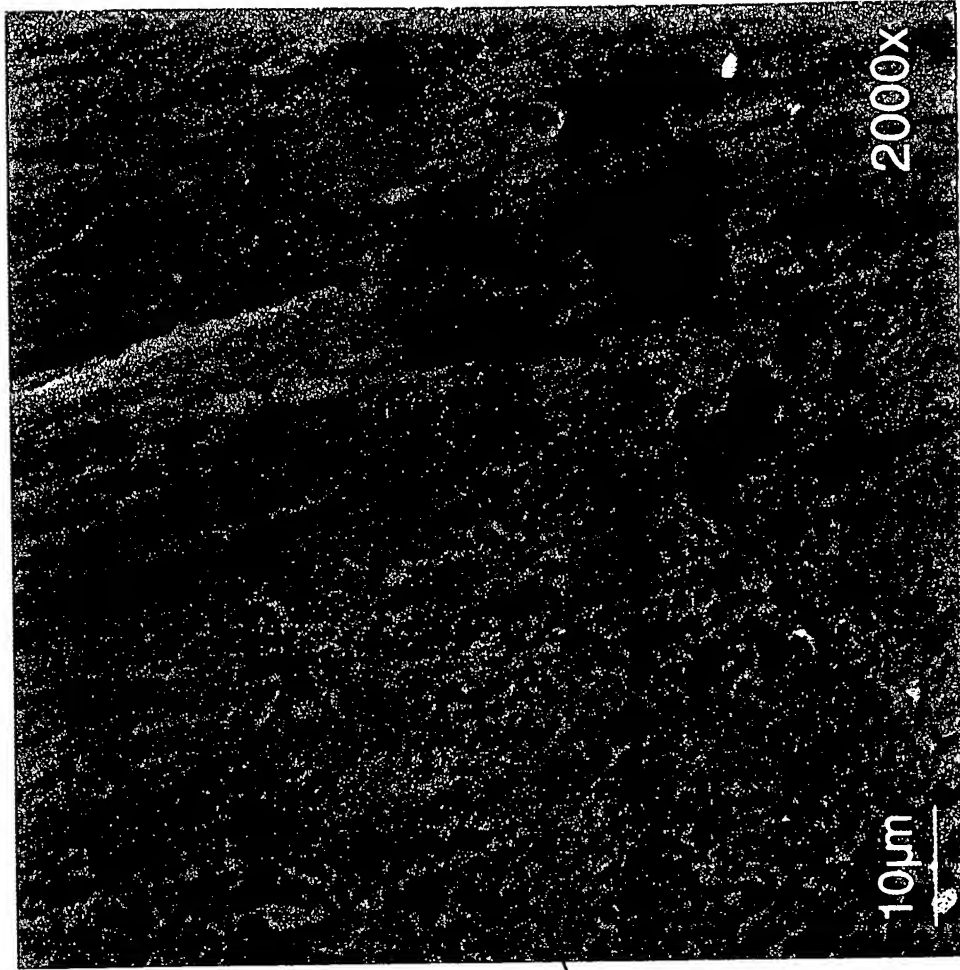
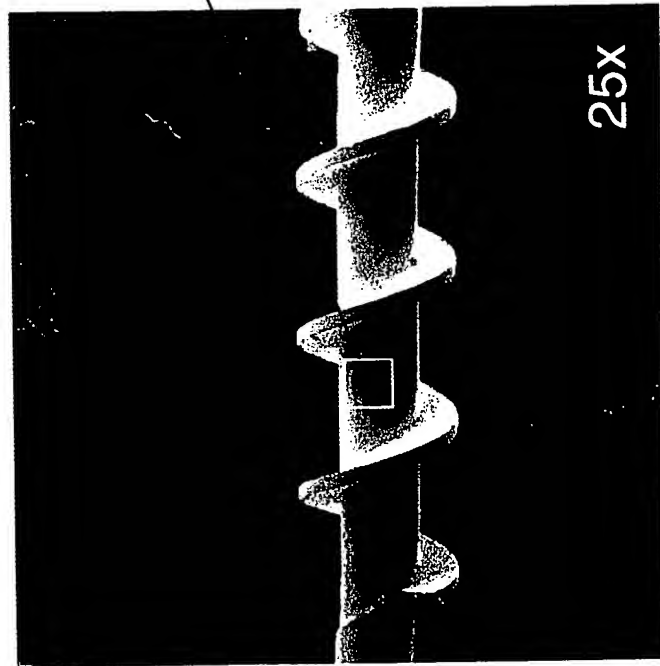
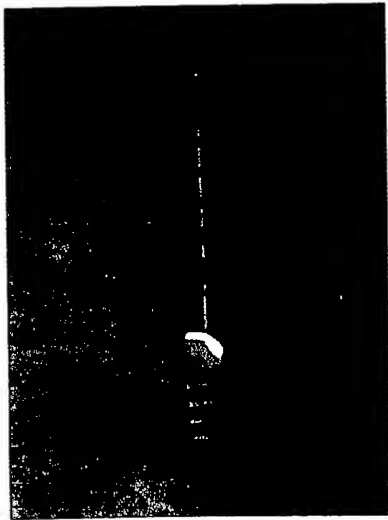
25x



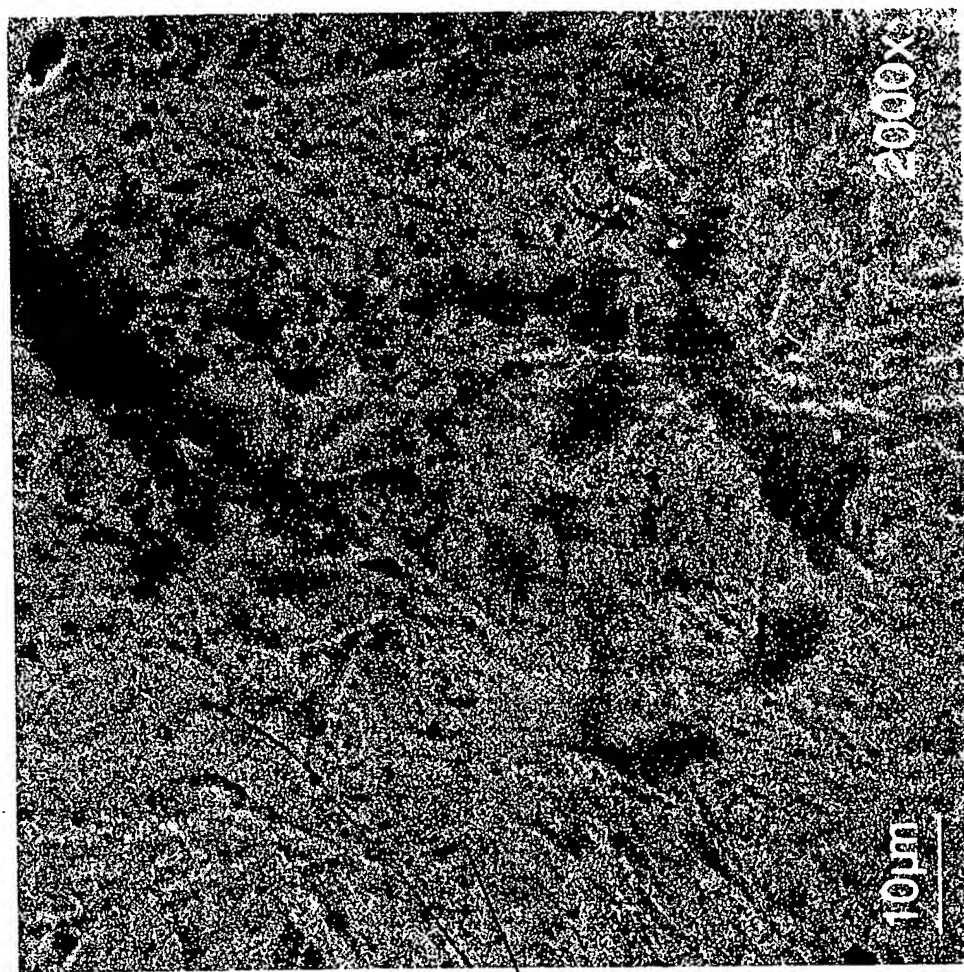
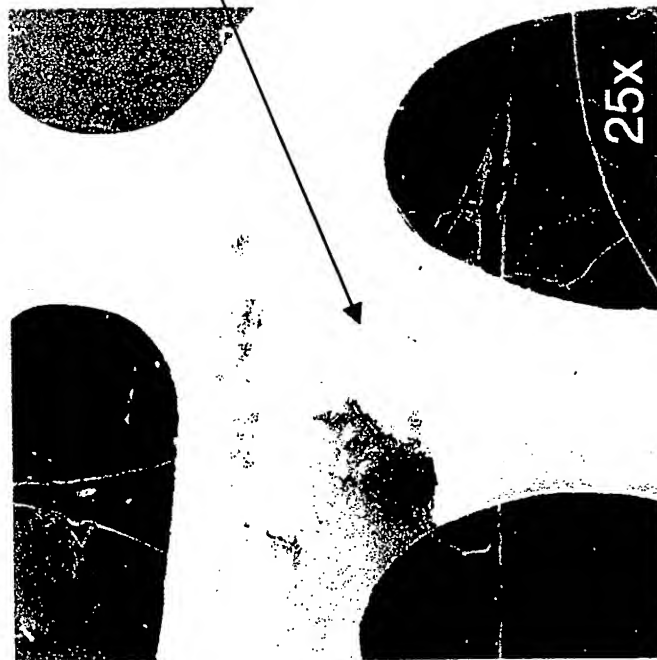
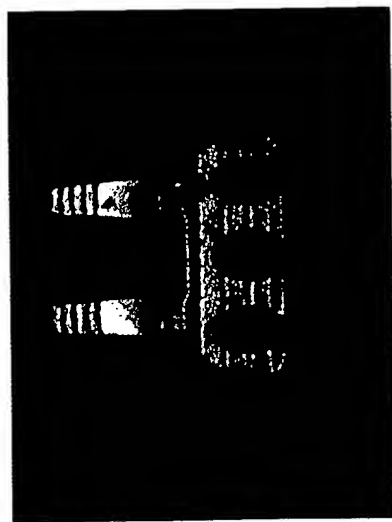
2000x

10µm

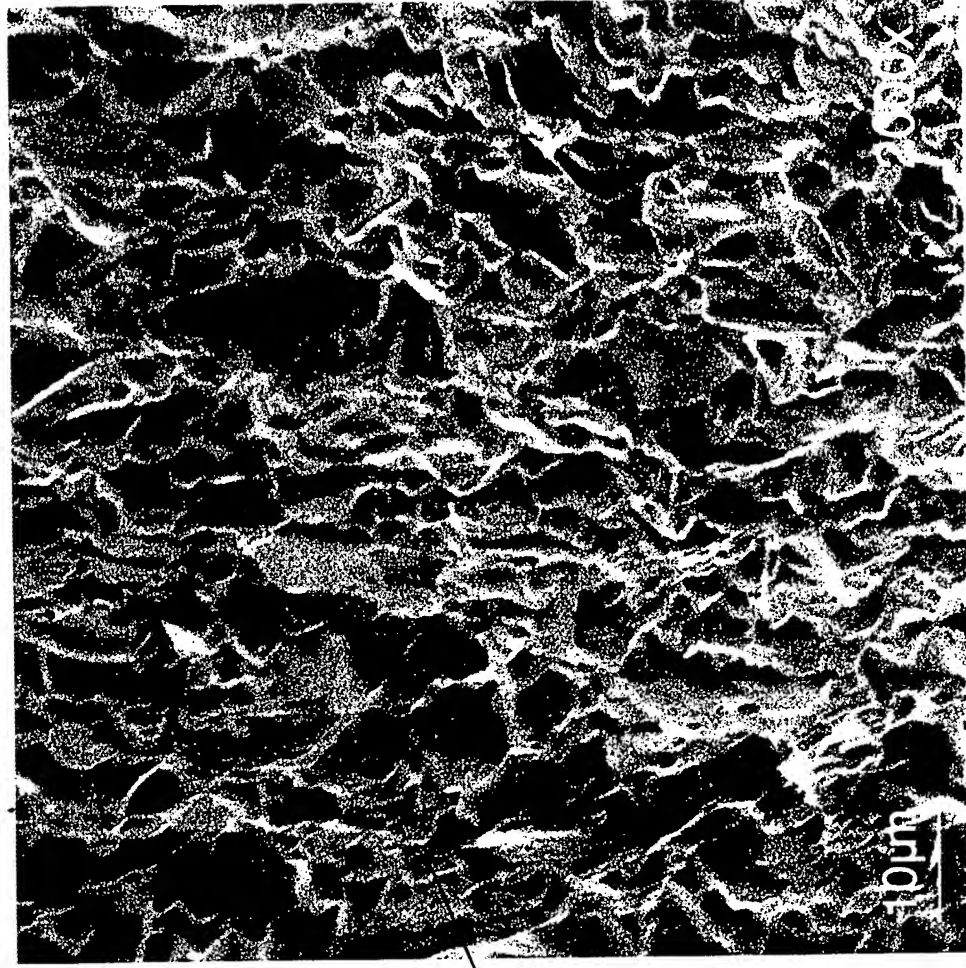
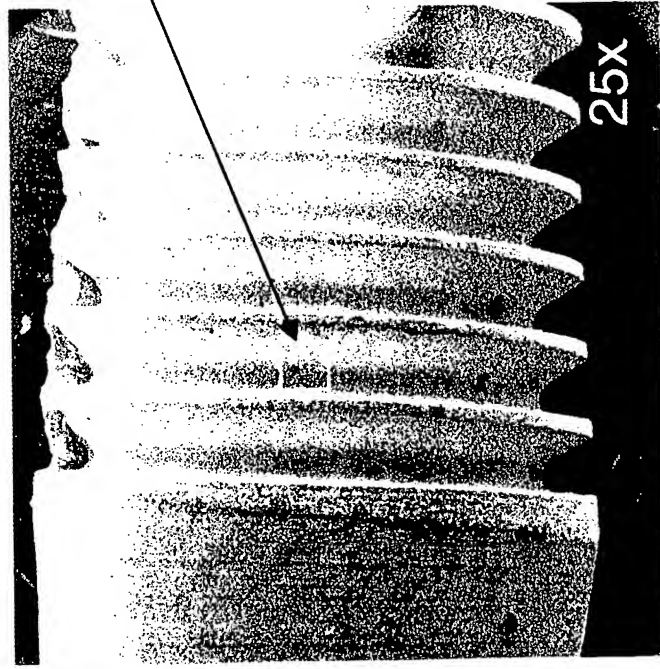
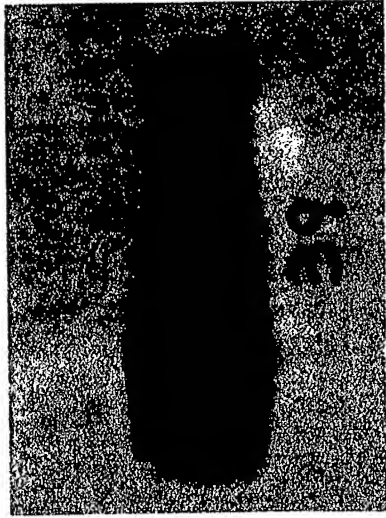
37. Oratronics Spiral



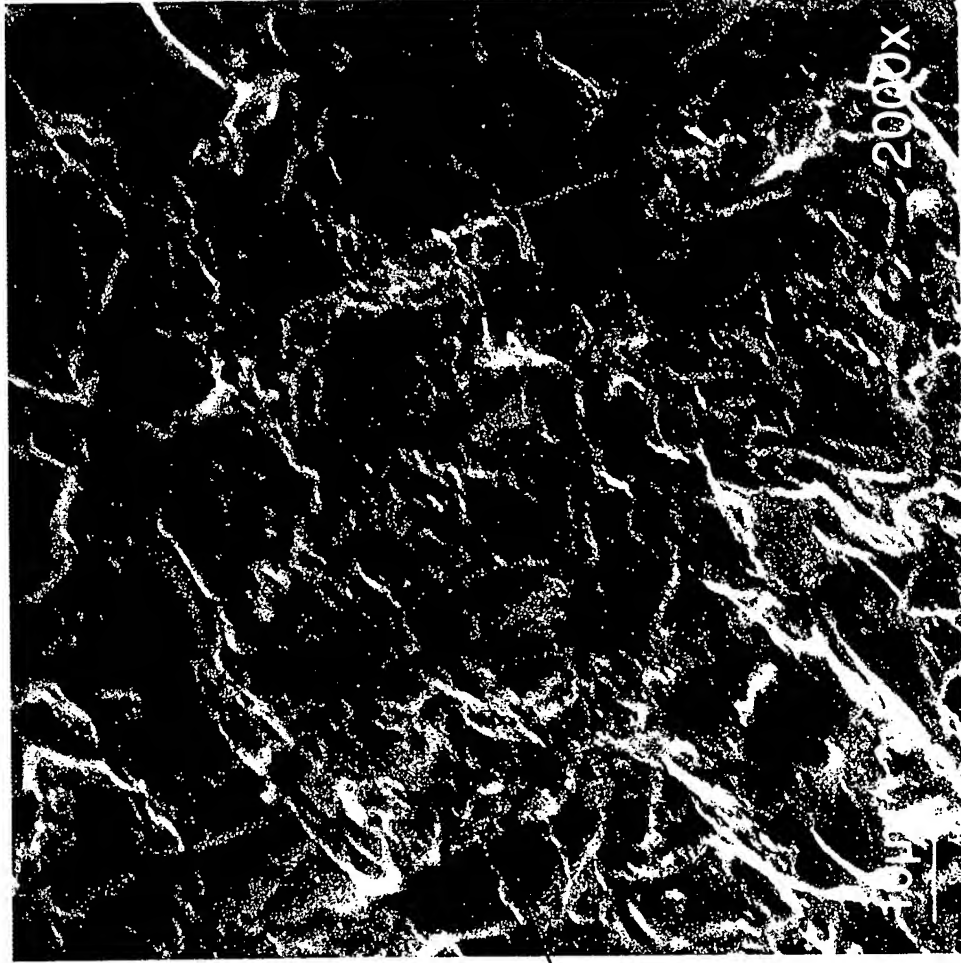
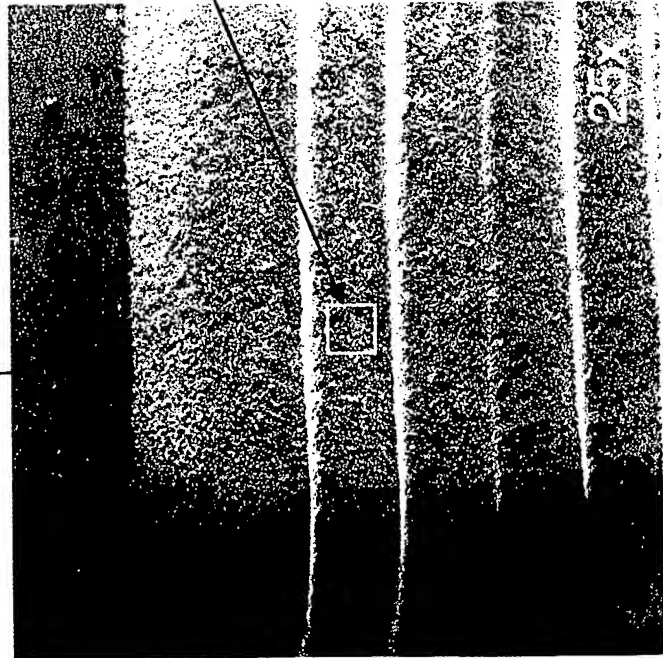
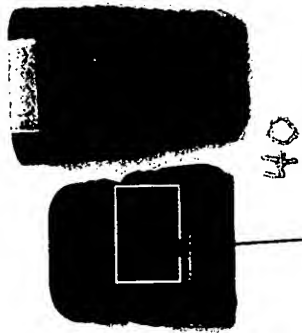
38. Oratronics Blade



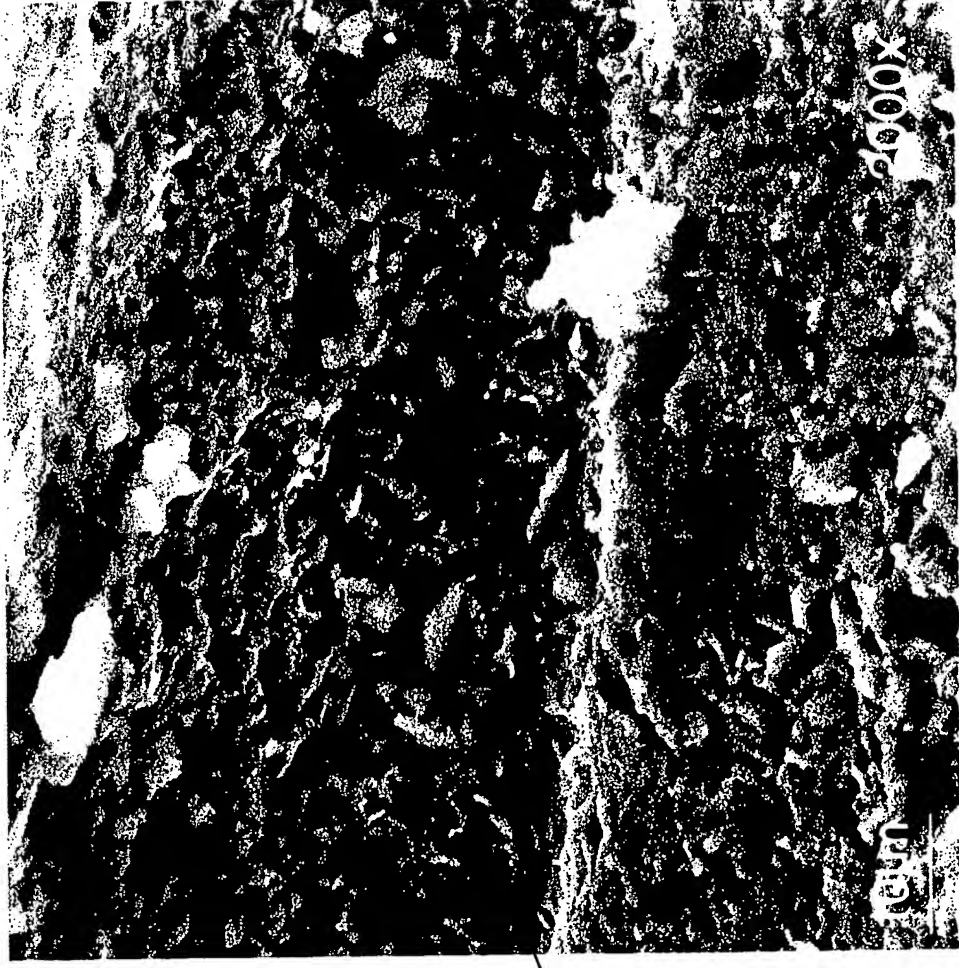
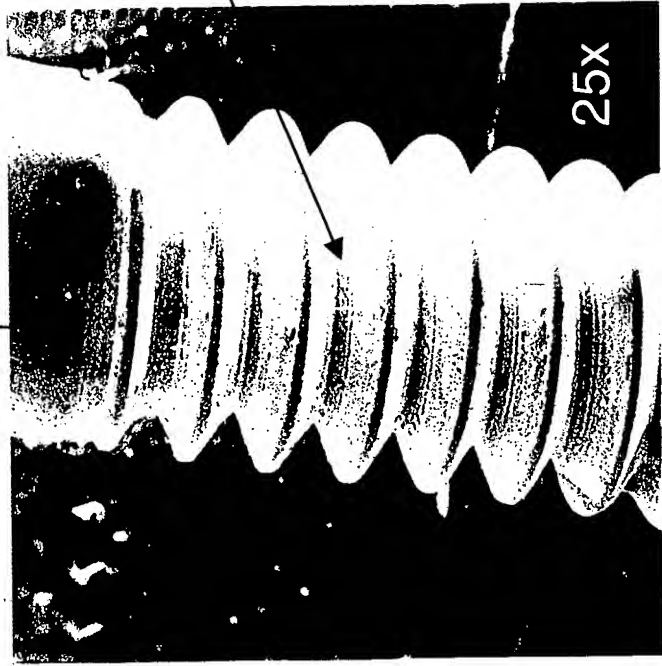
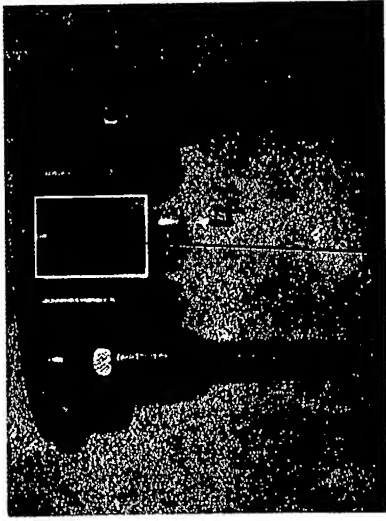
39. Synthodont



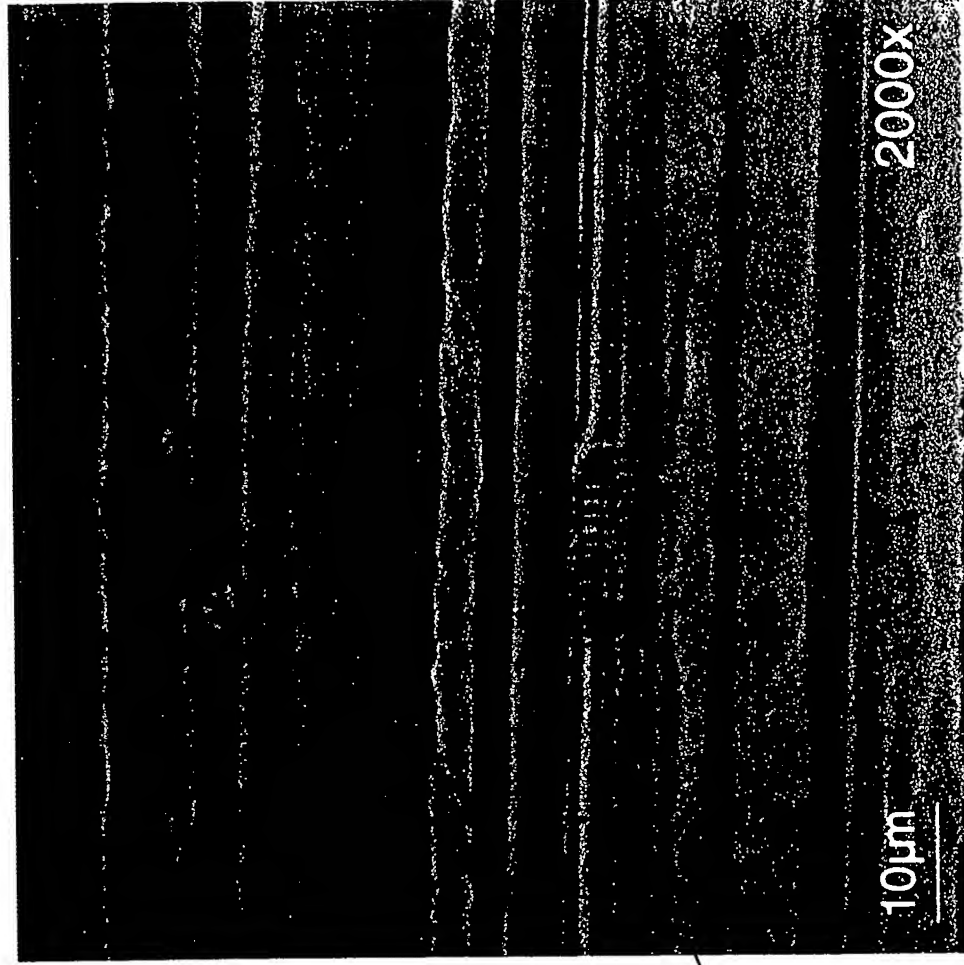
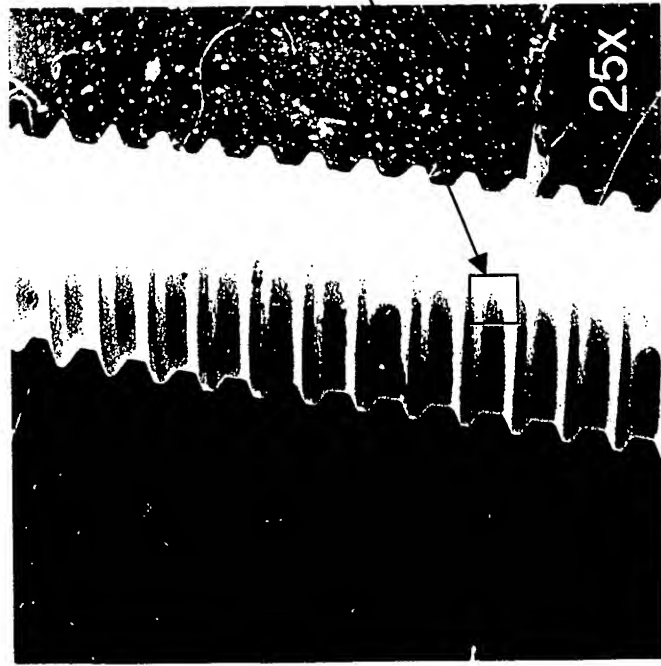
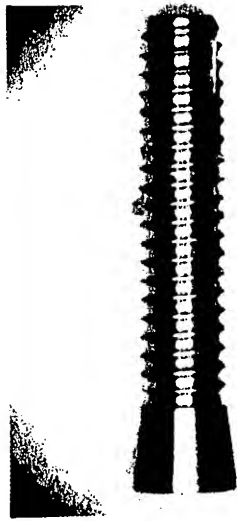
40. Vitradent



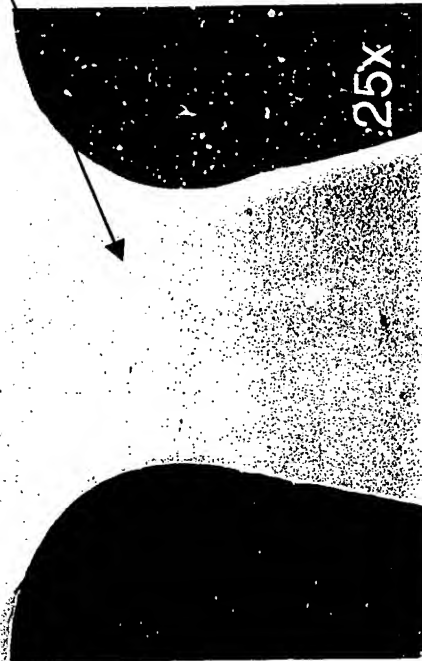
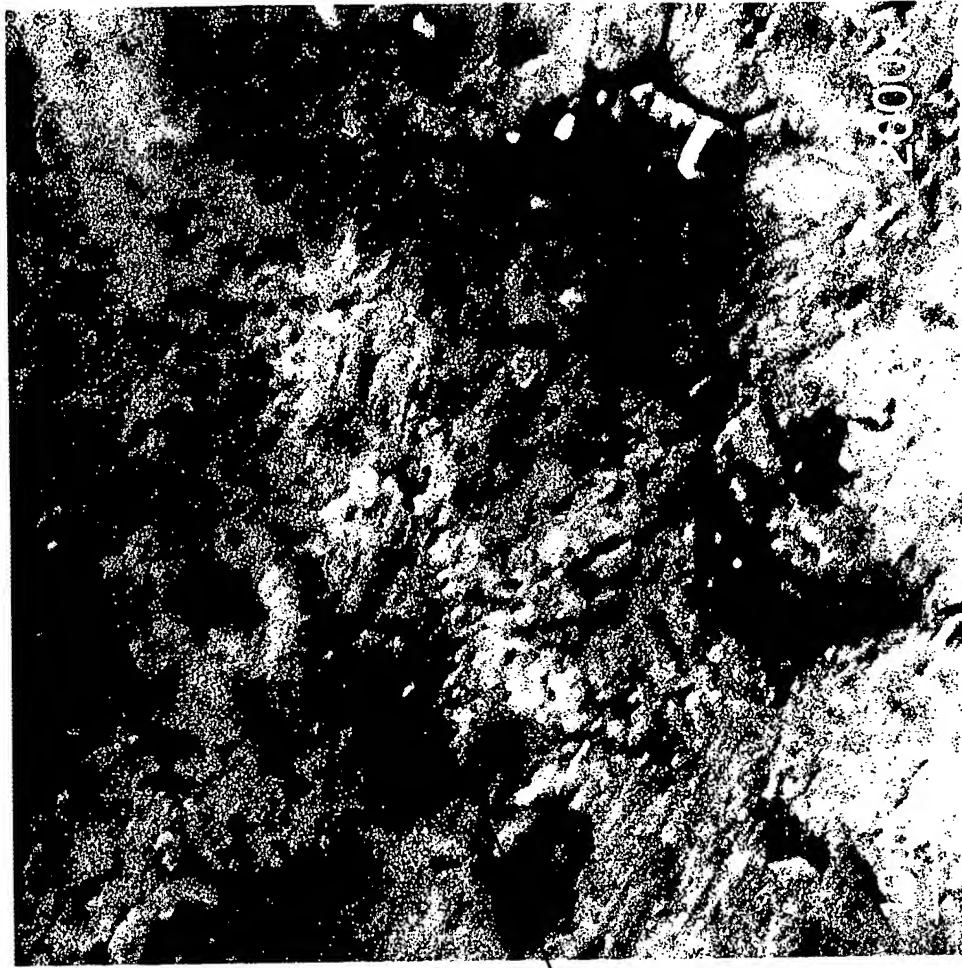
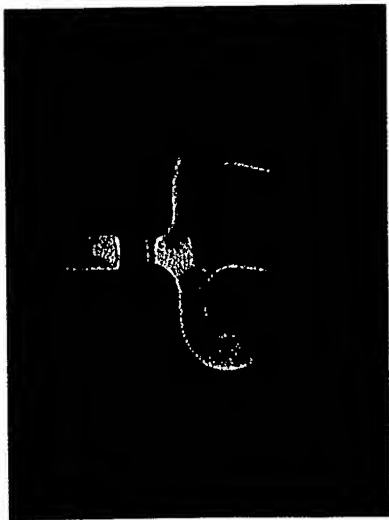
41. Zimmer Mandibular Staple



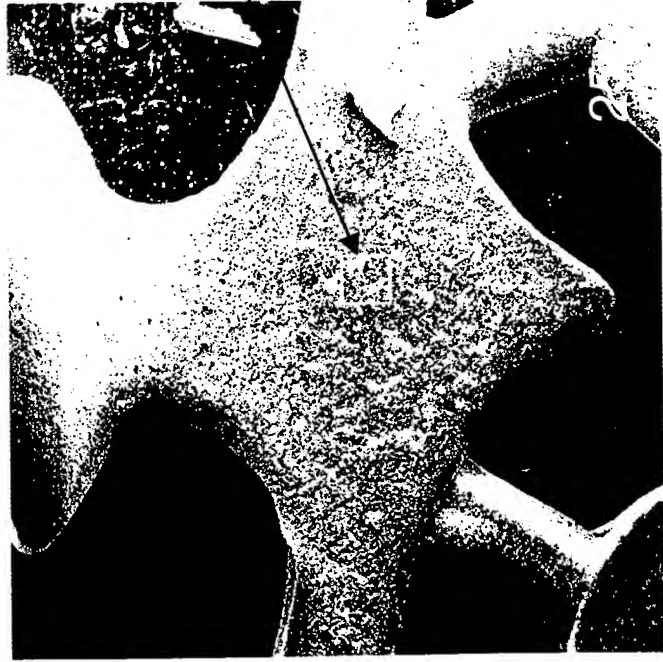
42. MI-150-TI



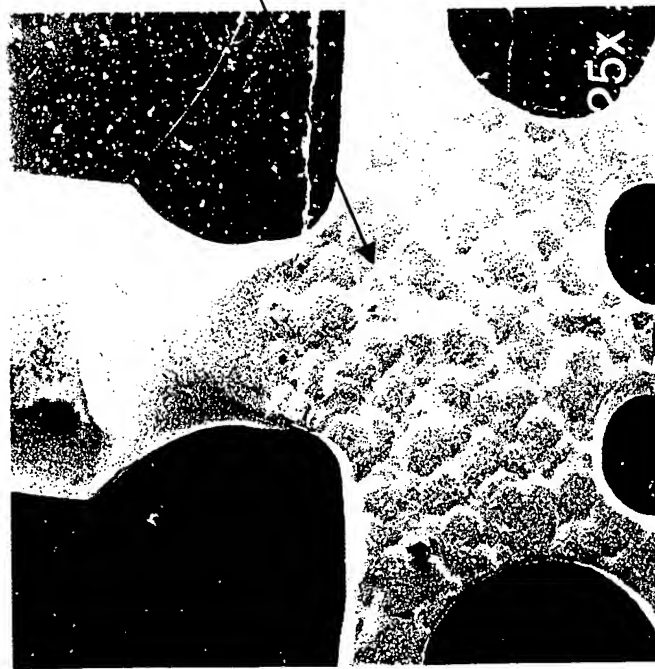
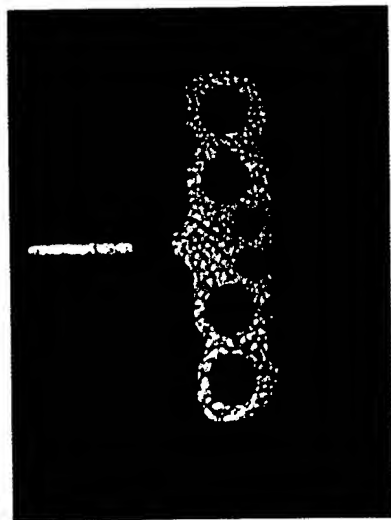
43. Ti 1968-70



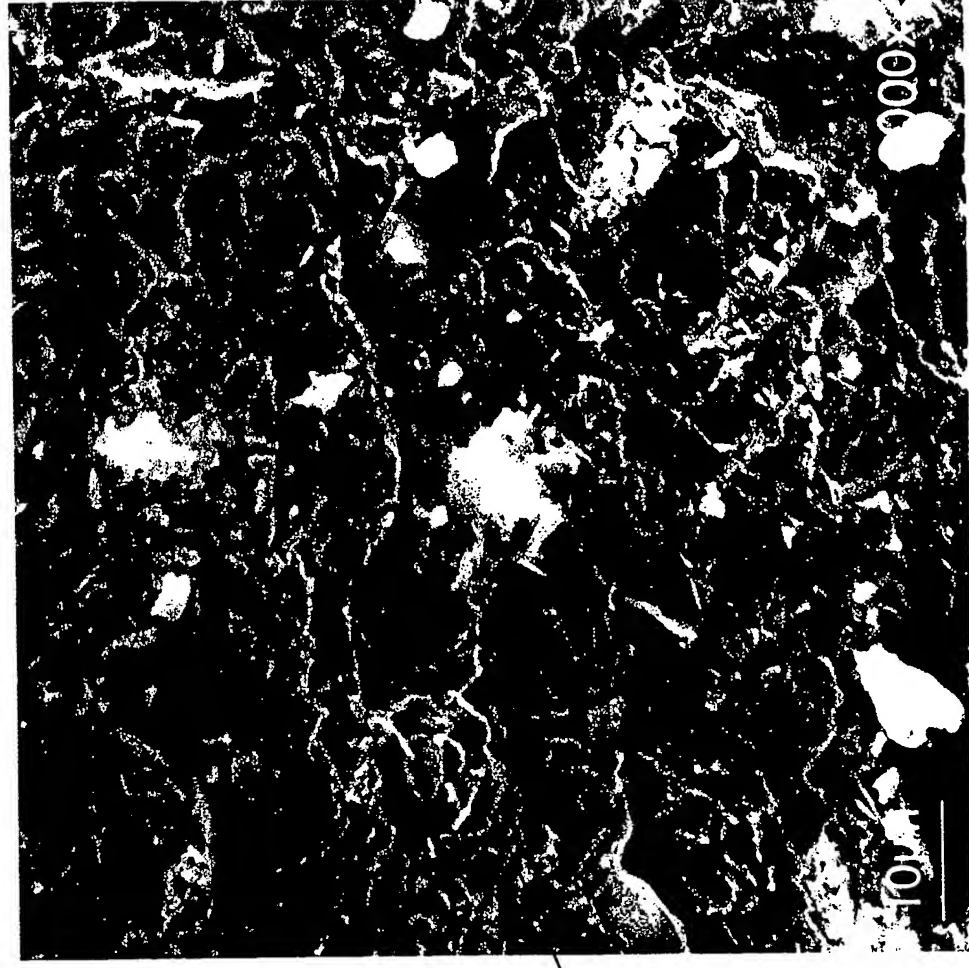
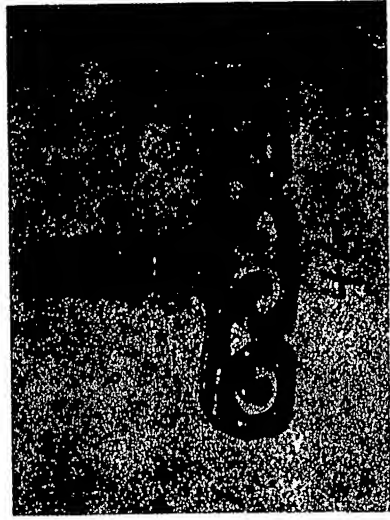
44. Cast Vitallium Surgical



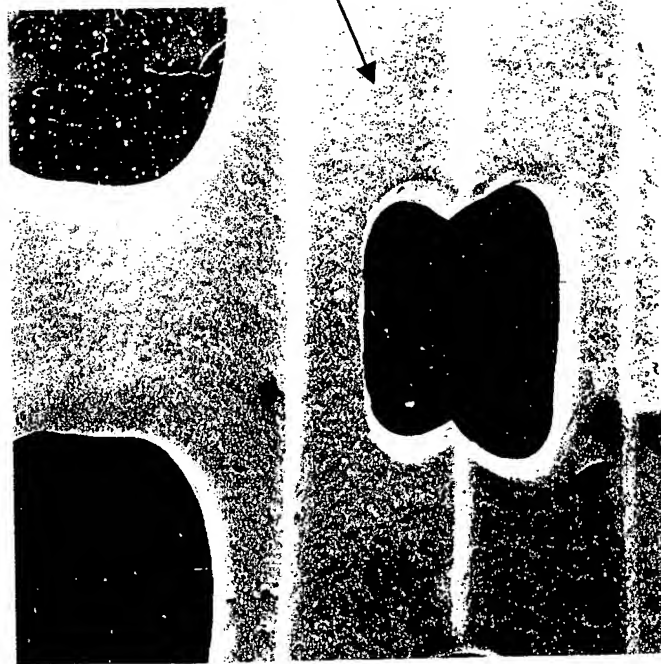
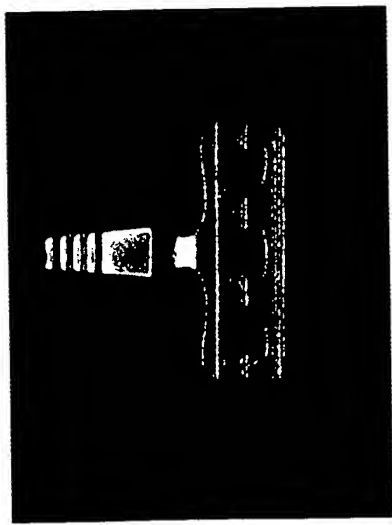
45. Park Dental



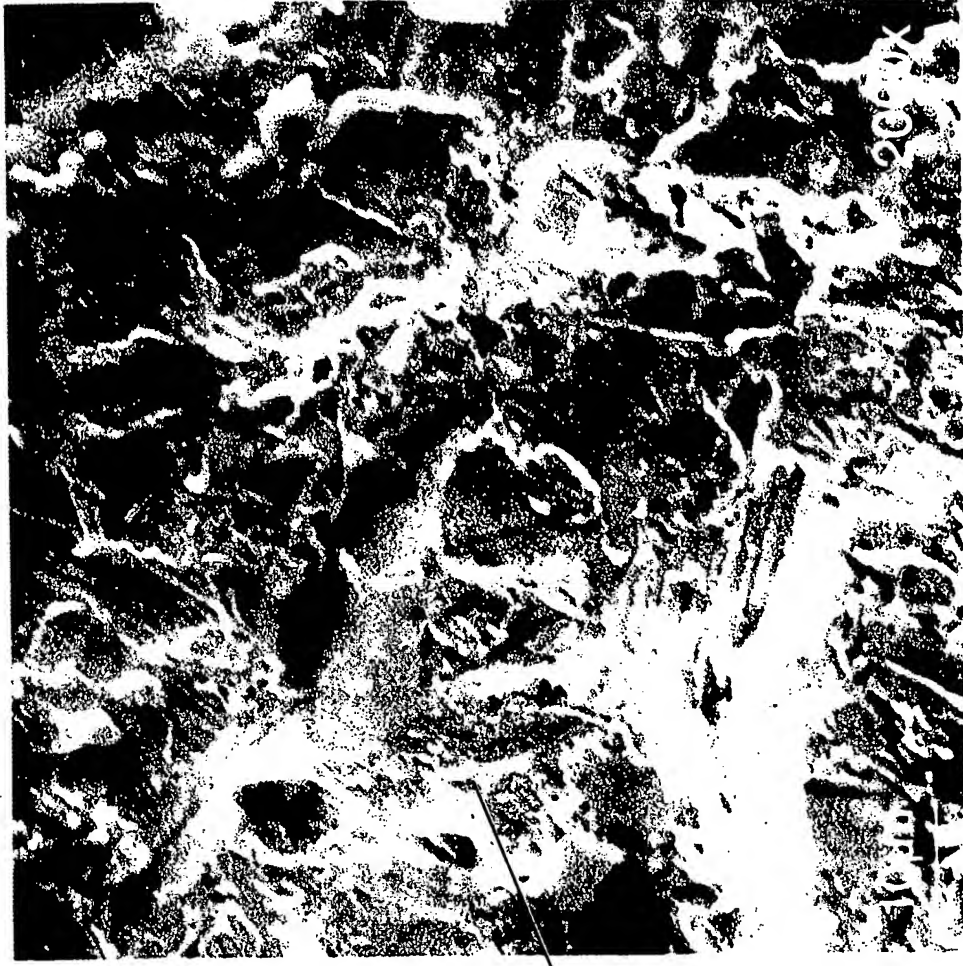
46. Babbush Implants



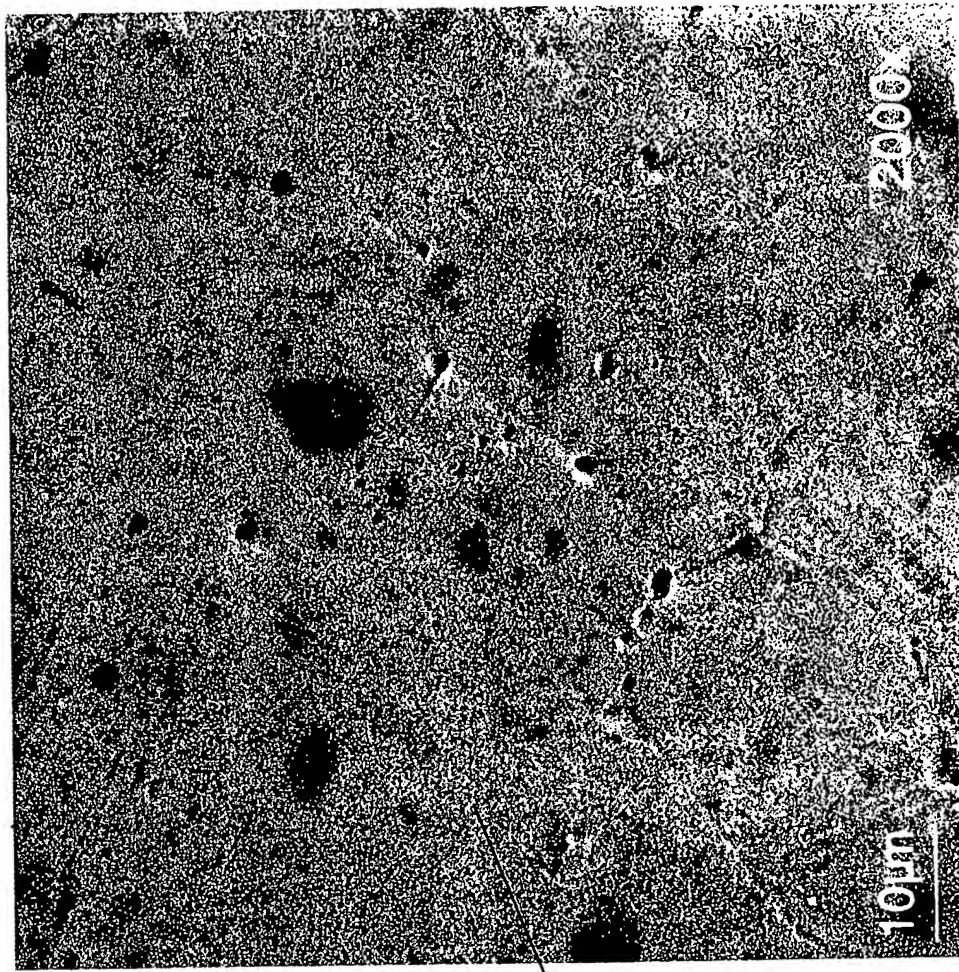
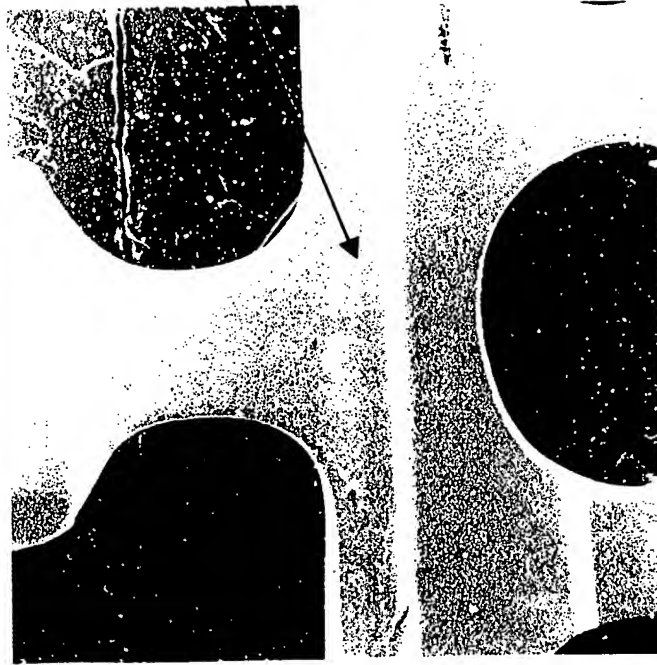
47. Oratronics



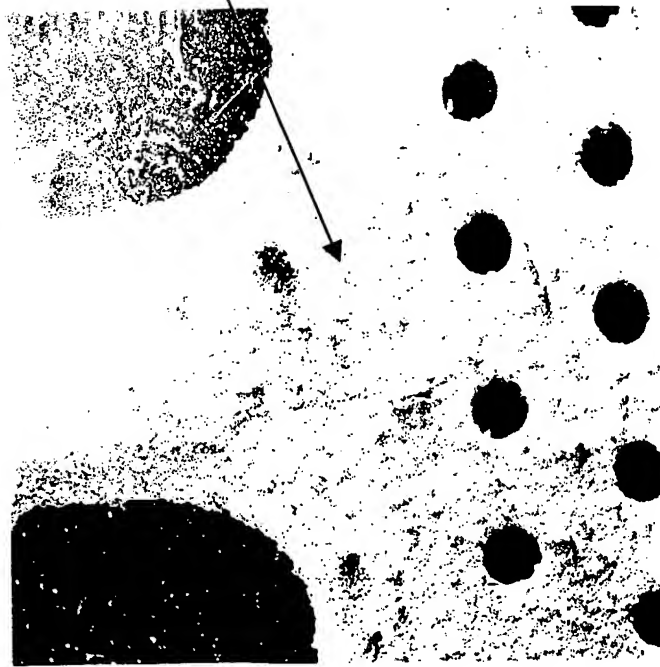
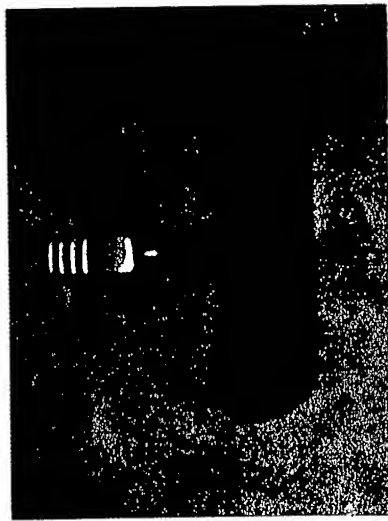
48. Swingos



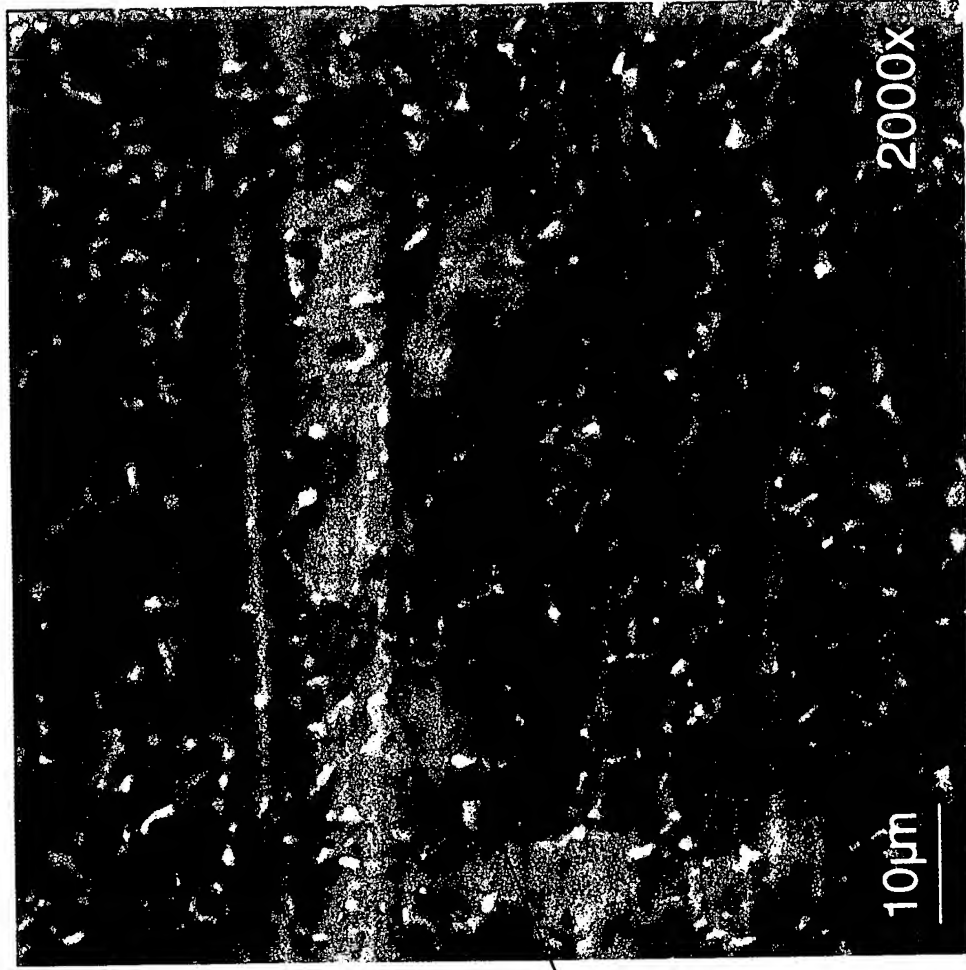
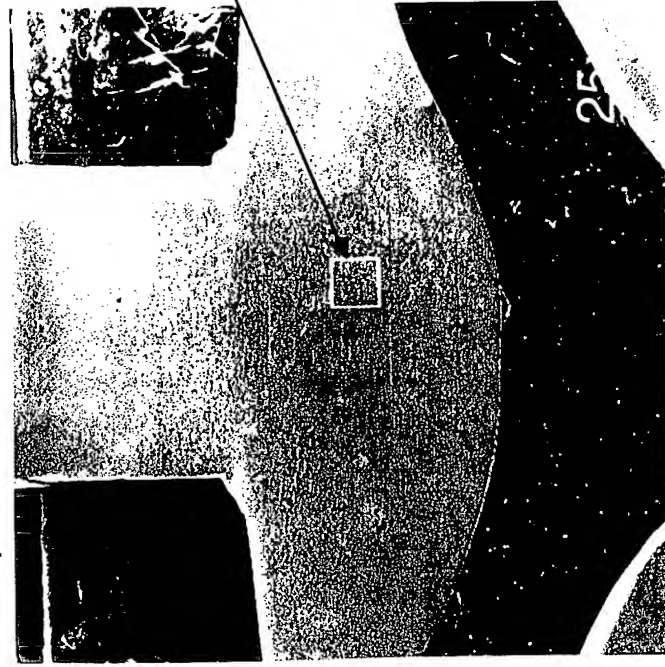
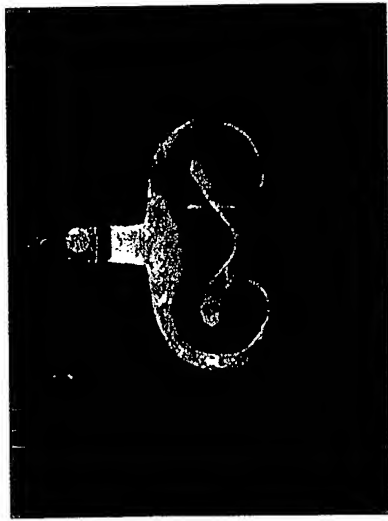
49. Konkoly



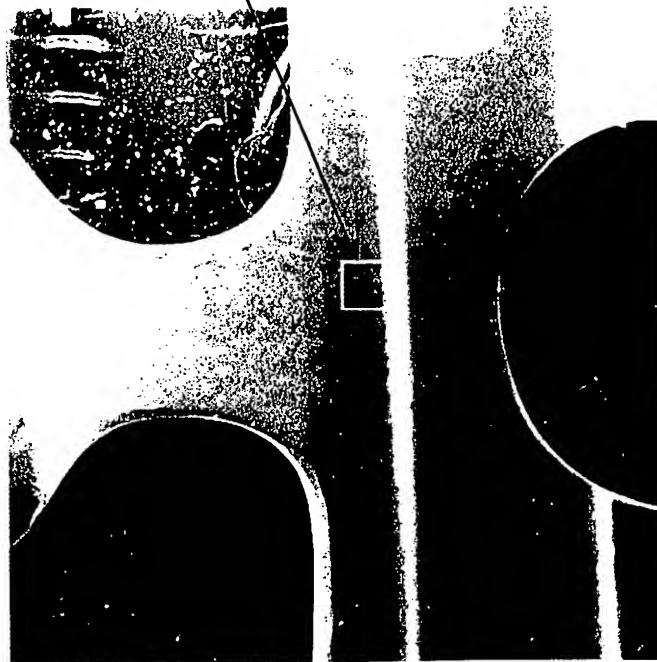
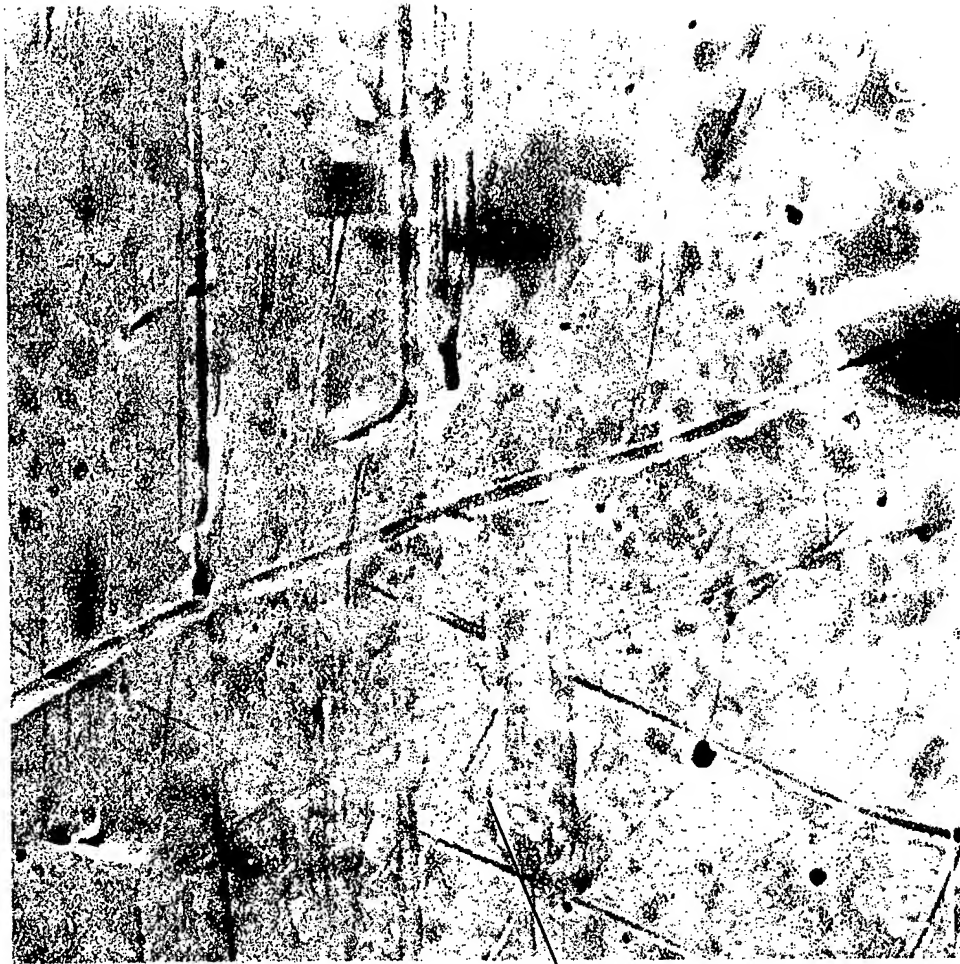
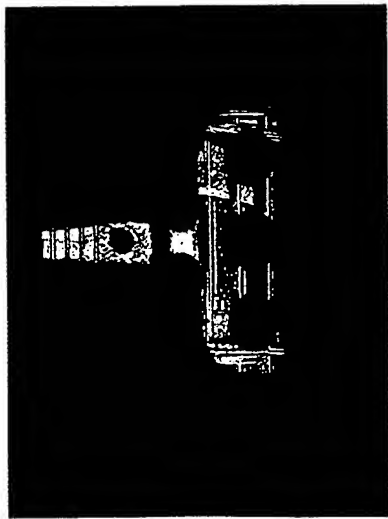
50. Sulzer Protusil



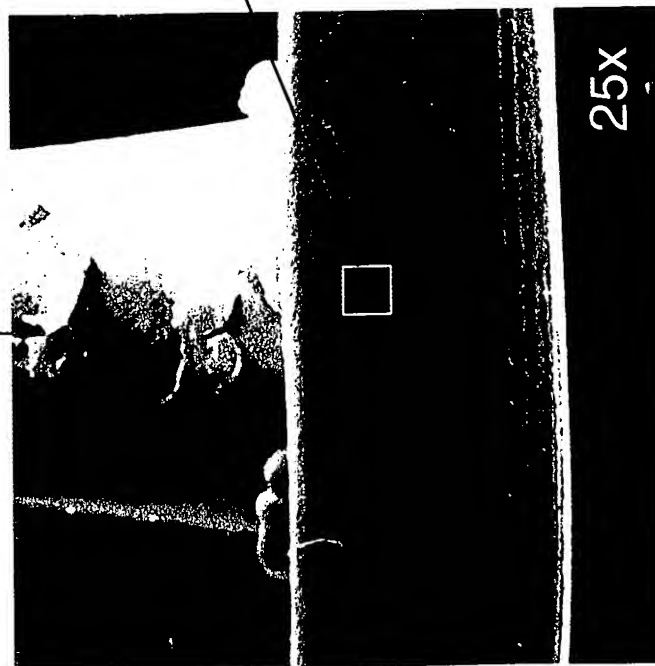
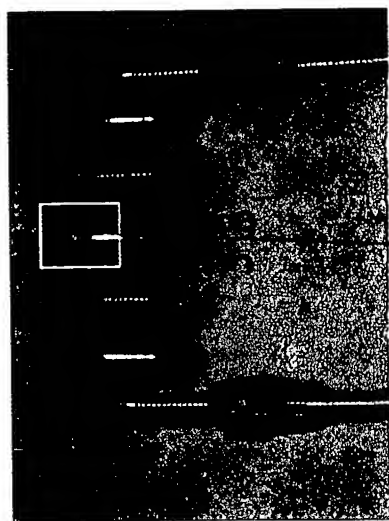
51. IRC



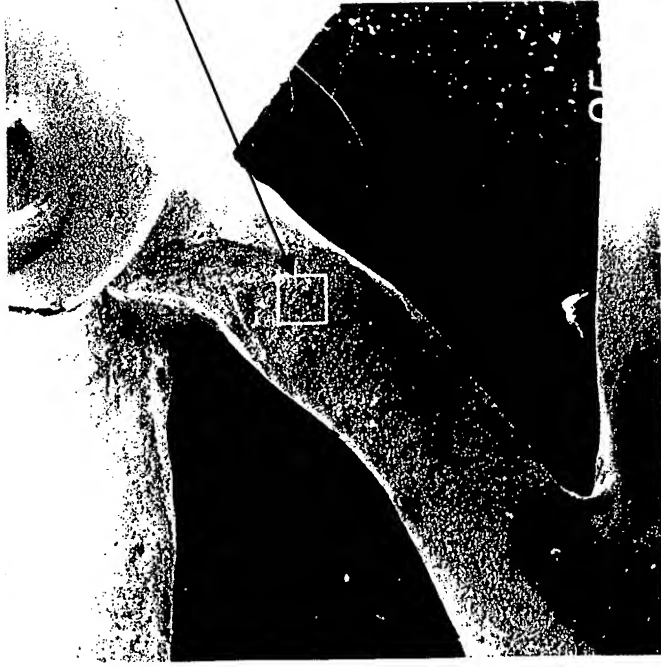
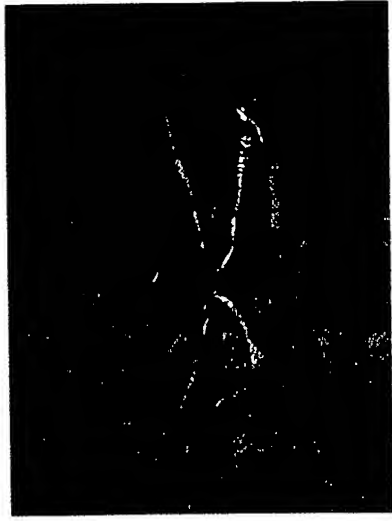
52. Oratronics



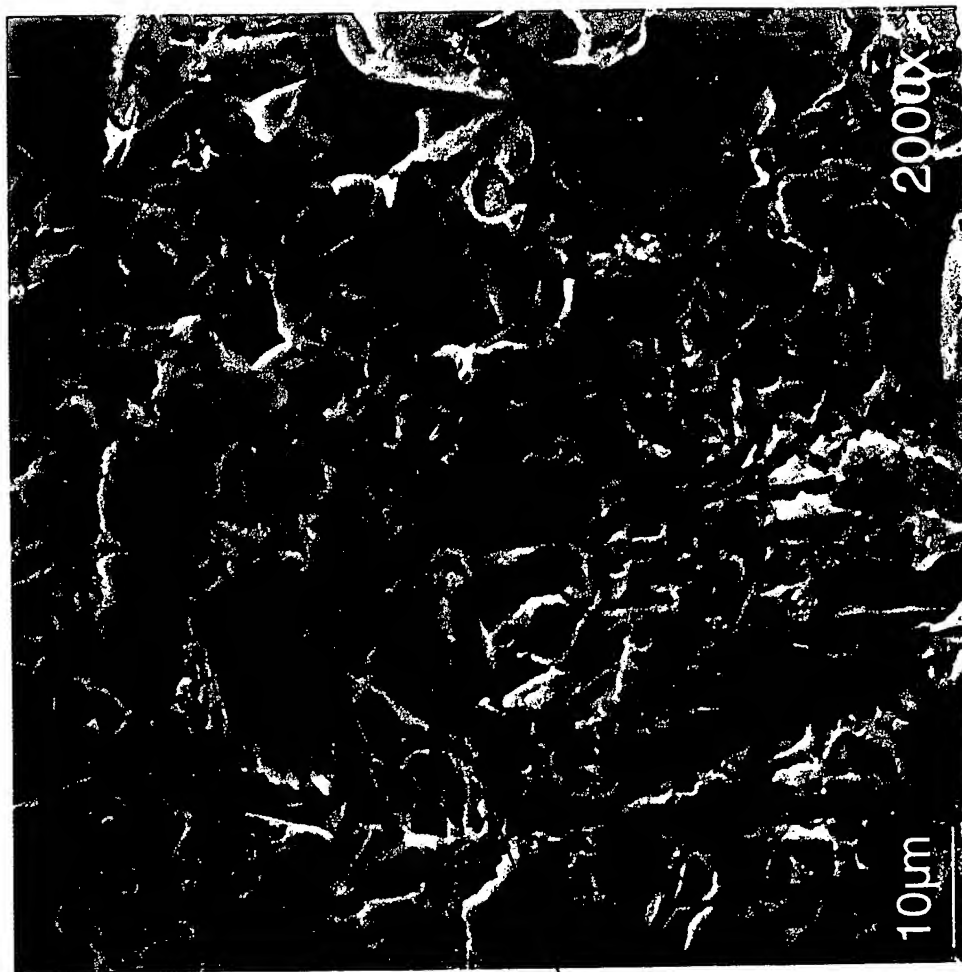
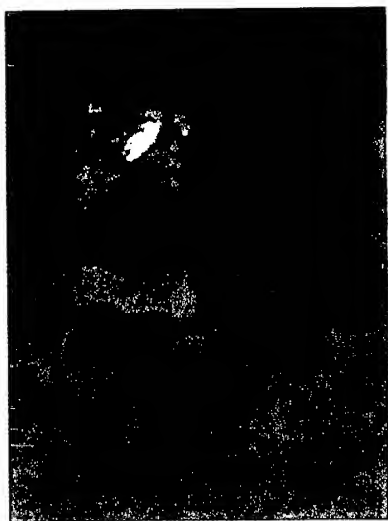
53. Hamilton



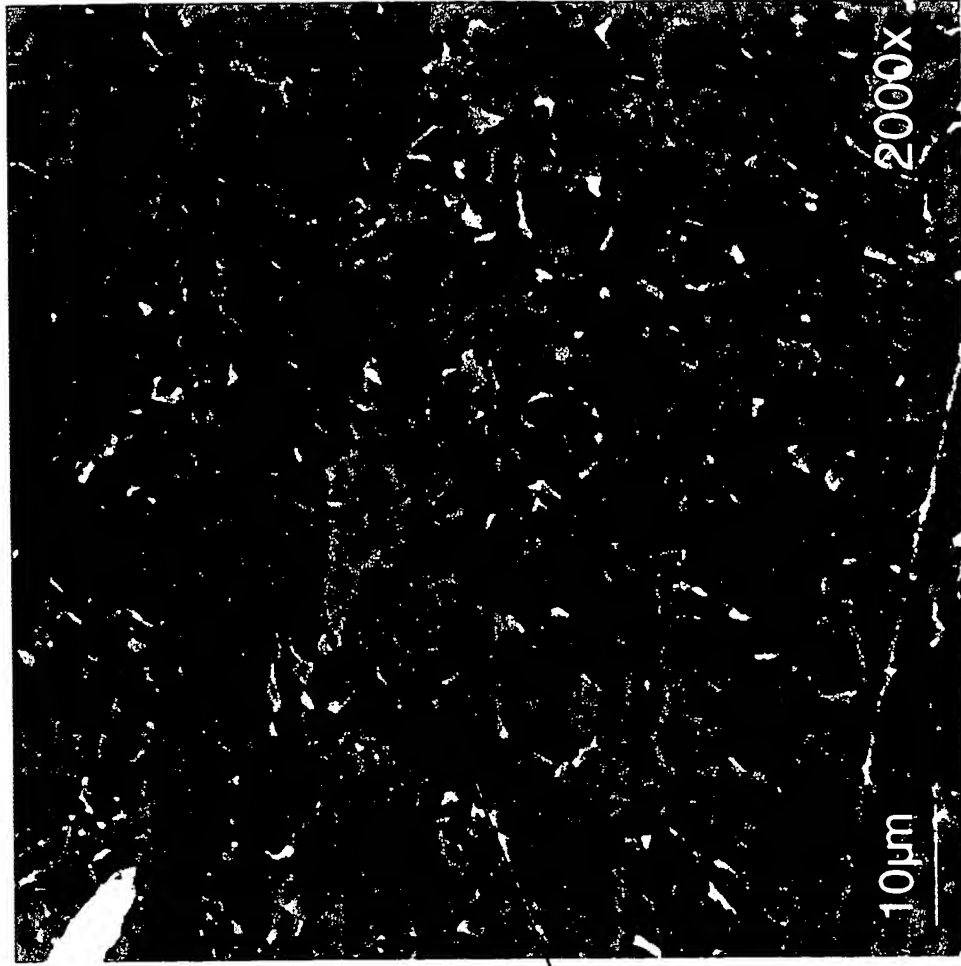
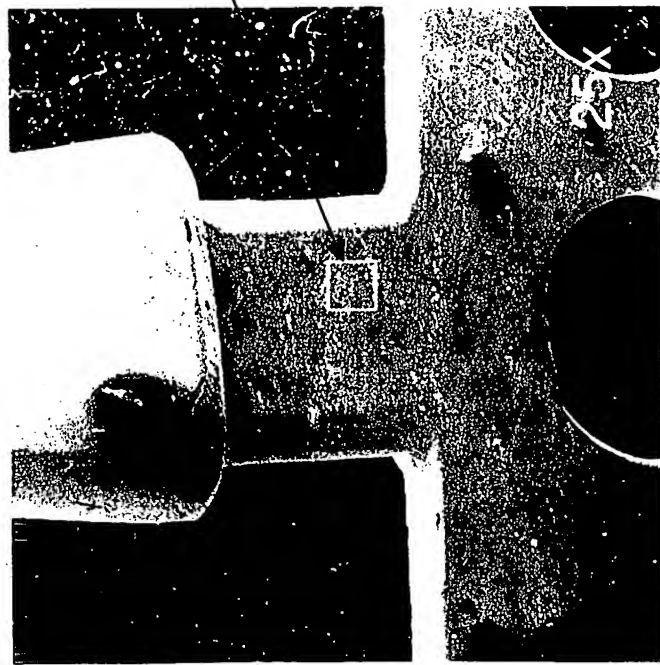
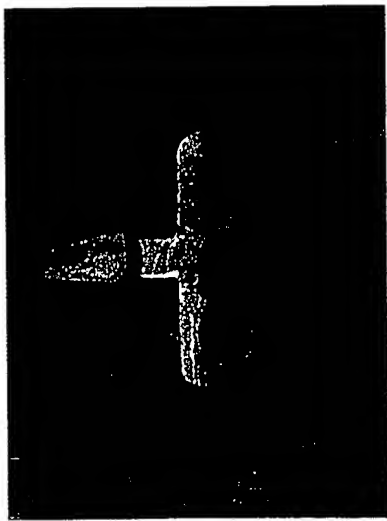
54. Barton Partial



55. Arenson



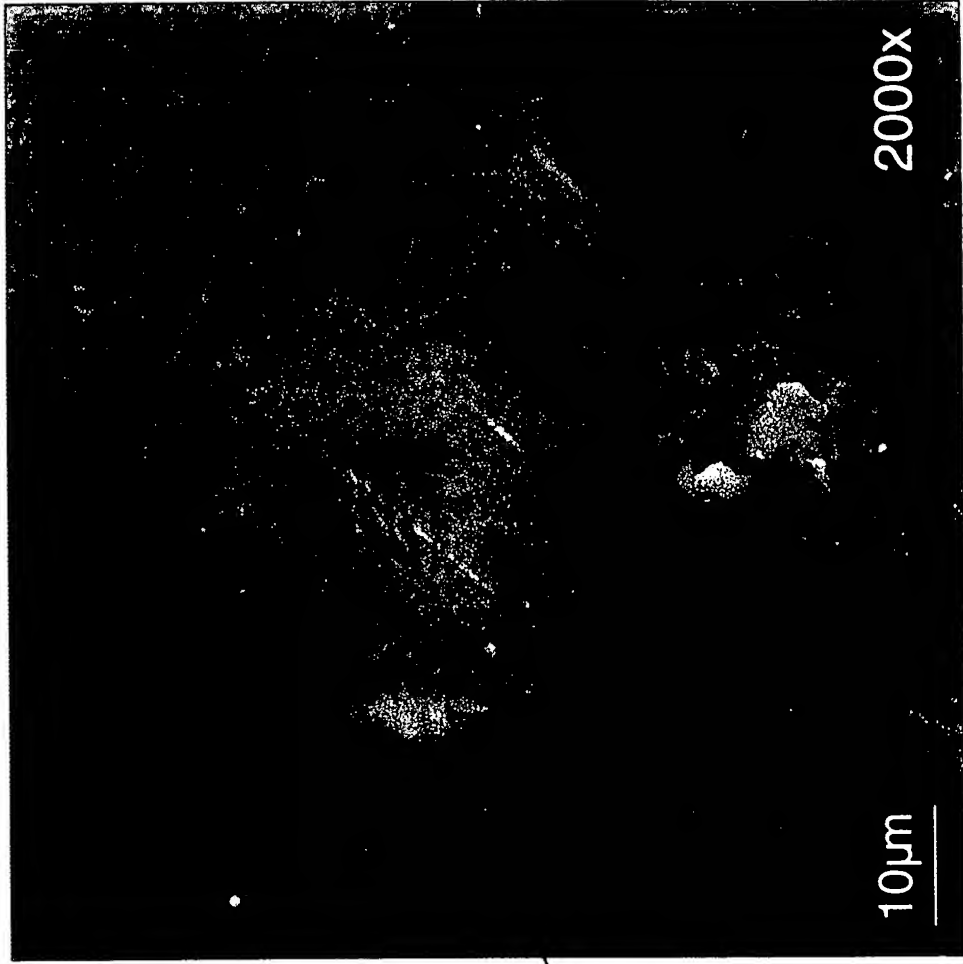
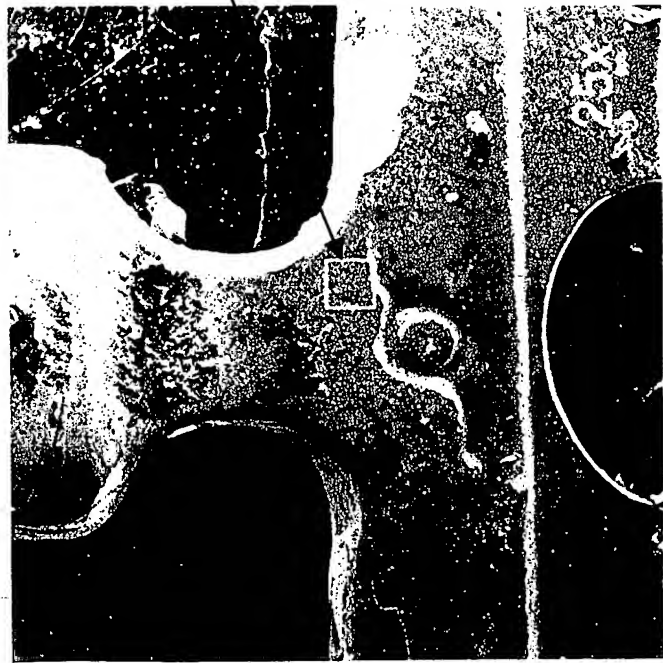
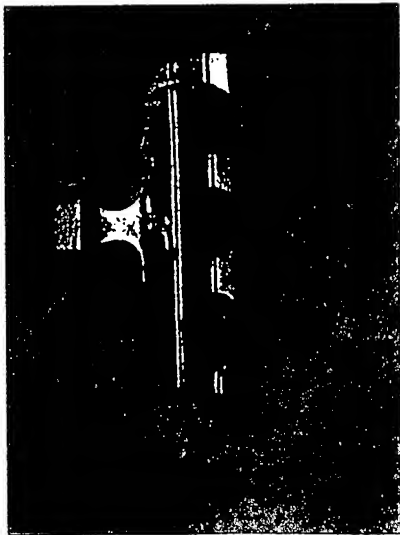
56. IRC Clinical Retrieval



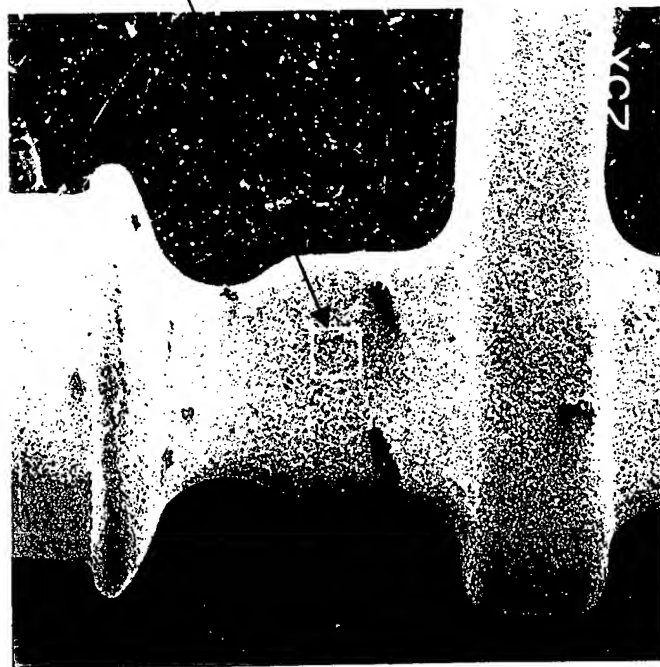
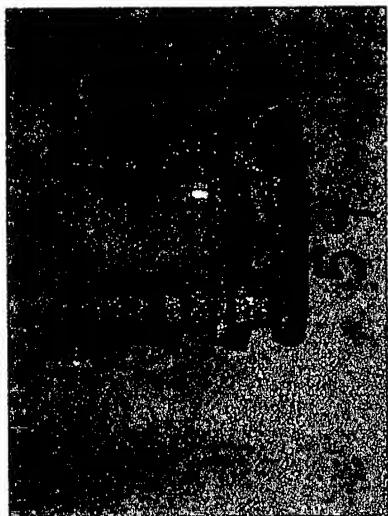
57. Park Dental



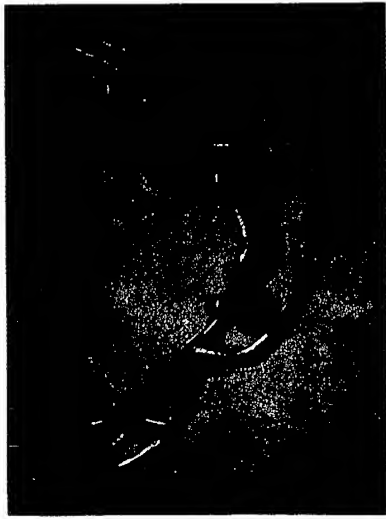
58. Oratronics



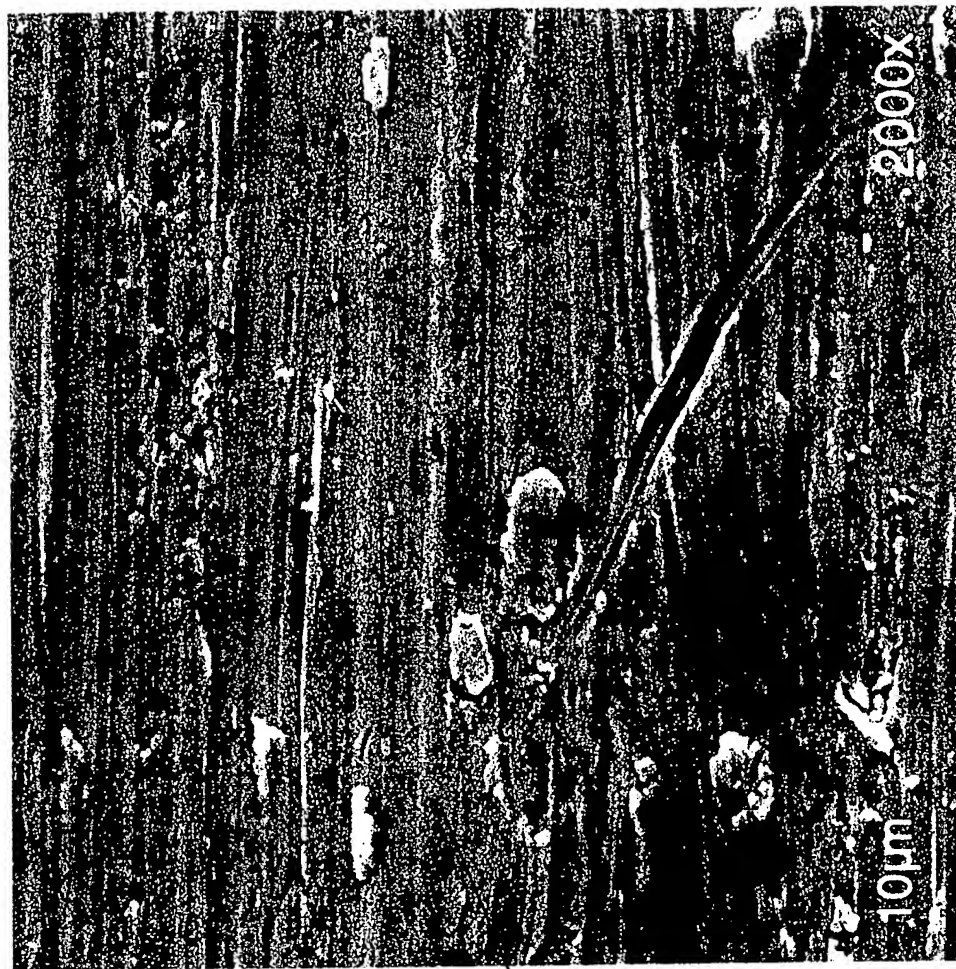
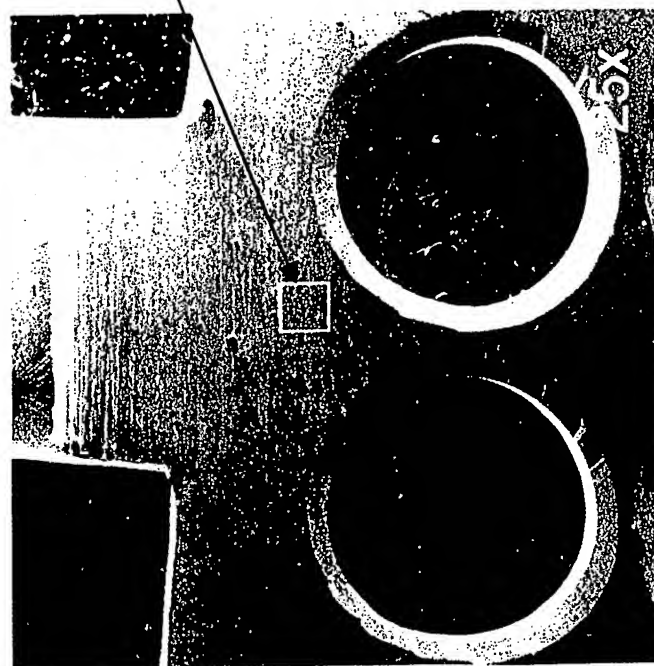
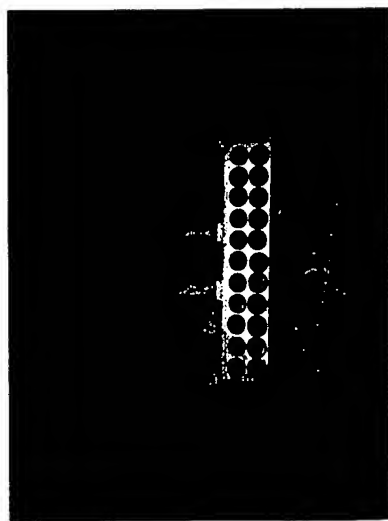
59. Interplant



60. Subperiosteal



61. Continuous Blade



**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.